

Contents for November, 1924.

Illustrations.

- Pressure Test Device to determine Maturity of Pears . . . 497
Wantirna Cool Stores Co.'s Display at Royal Agricultural Show 511

Contents.

- Answers to Correspondents—
San Jose Scale, Root Borer 520-1
Apple Crops, British, Canadian and U.S.A. 495
Beekeeping Notes 522
Canning News and Notes, Items from U.S.A. 505
Citrus Industry, Organising Growers, South Australian Export, Packing Suggestions 506-8, 25
Cold Storage, Internal Break-down of Apples 500-1
Dried Fruits Industry, Reorganisation, Statistics, Conference at Mildura (Vic.), Dried Fruits in England, 502-4, 513
Editorial, Dried Fruits Position, Pear Growers' Organising 492-3
Export, Apples 494
Export, Australian Fruit 514
Fruit Industry, Organising the Fruitgrowing under Irrigation 499
Fruit, New Varieties 521
Grapes, Doradillo 504
Market Reports, British, Australian and New Zealand 528-9
News in Brief 493-4
New South Wales, Curlwaa Irrigation Area, District News 514-15
New Zealand, Fruit Control 508, 9
Obituary 519
Oil Wraps 524
Pears, Picking Maturity of, New Tests 496-8
Pear Growers' Organising 495
Pear, The Avocado 525
Personal 513
Poultry Notes 522
Pig Rearing 522-4
Queensland, District News, Items of Interest 508-9
South Africa, Fruitgrowing in South Australia, Annual Conference of Fruitgrowers, Crop Prospects, Fruitgrowing under Irrigation 499, 512-13
Spraying Notes, Control of Cherry Aphis, Woolly Aphis 498, 515, 18
Subscribers' Payments 526
Tasmania, Cultural News and Notes, Advisory Board Meeting 516-17
Victoria, Crop Prospects, V.F.C.A. and Advisory Board Meetings, District News 510-12

INDEX TO ADVERTISERS.

Banks—

Primary Producers' Bank of Aust. Ltd., 11 Castlereagh-st., Sydney, N.S.W., p. xviii.

Canning Machines—

Heine, John and Son Ltd., Sydney, N.S.W., p. xxix.
Tombs & Howcroft Pty. Ltd., 369 Post 519.

Case Linings.

E. Russell, 60 Queen-st., Melbourne, p. 481.

Cider Press.

"Mount Gilead," Gibson, Battle & Co., 535 Kent St., Sydney, p. v.

Cold Storage—

Bender and Co., 100 Elizabeth Street, Launceston, Tas., cover ii.

Cultivators, Ploughs, &c.—

Harvey, D., Box Hill (Vic.), p. 524.
"Newlight," H. V. McKay Pty. Ltd., Sunshine, Vic., pp. xxii. and xxvii.

Dehydration—

Latham, D. J., Sun Buildings, Queen Street, Melbourne, p. 519.
J. H. Morton, Bank N.S.W., Sydney, N.S.W.
Vincent, Geo., Oswald-lane, Darlinghurst, Sydney, N.S.W., p. xxiii.

Dried Fruits, &c.—

McClure, Valentine & Co. Pty. Ltd., 49 William St., Melb., Vic., p. xxvii.
Mildura Co-operative Fruit Co. Ltd., Mildura, Vic., p. x.

Fruit Buyers—

Brooke, C. M., & Sons, Whiteman St., South Melbourne, Vic., p. 530.

Fruit Tree Suppliers—

Balhamann Deciduous Nurseries, Balhamann, South Australia, p. xxvii.
Brunner, John, and Sons, Somerville, cover iv.
Ferguson, F., & Son, Australian Nurseries, Hurstville (N.S.W.), p. 530.
Kingleake Nurseries, Yarra Glen, Vic. (J. W. Lawrey), p. xxii.
Lasscock's Nurseries, Henley Beach Road, Lockleys, South Australia, p. 527.
Picnic Point Nurseries, Bairnsdale, Vic. (C. J. Goodman), cover ii.
Two Bays Nurseries, Moorooduc, Vic., p. ix.

Fruit Graders—

"Ellisizer," Ellis Grader & Motor Co., 226 Flinders-lane, Melbourne, Vic., p. xxii.
"Gulder," Dennys, Lascelles Ltd., 509 Collins St., Melb., p. 520.
"Lightning," Lightning Fruit Grader Co., 109 Cromwell St., Collingwood (Vic.), p. 516.
"Master Sizer," Buzacott & Co. Ltd., 7-11 Market St., Sydney (N.S.W.), p. xxviii.

Insurance, &c.—

Farmers' and Settlers' Co-operative Insurance Co. of Aus. Ltd., 360 Collins St., Melbourne, Vic., cover ii.

Manures, Fertilisers, &c.—

"Cresco" Fertiliser, Cresco Fertilisers Ltd., 111 North Terrace, Adelaide (S.A.), p. ix.
"Sulphate of Ammonia," agents all States, p. 518.

Medicines—

"A.M.S." T. A. Dickson, Geelong, Vic., p. 526.

Motor Lorries—

"Ford" One-ton Truck, Tarrant Motors Bourke-street, Melbourne, p. xvi.
"Chevrolet," S. A. Cheney Motors Pty. Ltd., 22 Flinders St., Melbourne, p. 525.

Orchard Requisites.

McPherson's Pty. Ltd., 582 Collins St., Melbourne (Vic.), p. xxi.

Orchard Tractors—

"Case" Commonwealth Agric. Service, Eng., Ltd., Adelaide, S.A., p. xxi.
"Fordson" Tarrant Motors Pty. Ltd., xvi.

Poultry—

Karswood Poultry Spice, Agents all States, p. 523.

Printing—

Horticultural Press Pty. Ltd., 9 Queen St., Melbourne, p. xxx.

Refrigerating Machinery—

Werner, R., & Co. Pty. Ltd., Richmond, Vic., cover iii.

Seeds, &c.—

Brunning, F. H., Pty. Ltd., 64 Elizabeth St., Melbourne, p. xxiv.
Watters and Sons, 251 Swanston St., Melbourne, Vic., p. xxiii.

Spray Material—

"Blue Bell" Arsenate of Lead, 31 Queen St., Melbourne, Vic., p. iii.
"Carlton" Arsenate of Lead, F. R. Mellor, 440 Elizabeth-st., Melbourne, p. 521.
"Elephant" Brand, Jaques Pty. Ltd., Madden Grove, Burnley, Vic., p. xii.
"Electro" Dry Arsenate of Lead, agents all States, p. xv.
"Green Cross" Arsenate of Lead, Welch Perrin & Co. Pty. Ltd., Queensbridge-st., South Melbourne, p. 529.
"Swift's" Arsenate of Lead, H. W. Peabody & Co., Sydney and Melbourne, p. viii.
"Orchard" Brand, Buckeye Harvester Co., Francis St., Melbourne, p. 526.
"Vallo" Arsenate of Lead, A. Victor Leggo and Co., Melbourne, Sydney and Brisbane, p. xii.
"Black Leaf 40," Coastal Farmers' Co-operative Soc. Ltd., Melbourne, p. xxvii.
Neptune Oil Co. Ltd., River St., Richmond (Vic.), p. xxix.
Newell & Co., 189 King-street, Melbourne, p. xx.

Spray Pumps and Guns—

"Bave-U" Power Sprayer, Russell & Co., Box Hill, Vic., p. v.
"Cooper," Cooper Engineering Co. Ltd., 129 Sussex St., Sydney and 350 Spencer St., Melbourne, p. xxiv.
"Edgell" Spray Pistol, Buzacott & Co. Ltd., 7-11 Market St., Sydney (N.S.W.), p. xxiii.
"Kangaroo," Chandler, D. & W., Pty. Ltd., Brunswick St., Fitzroy, Vic., p. xxx.
"Nufrend" Spraying Outfit, Metters Ltd., Rundle St., Adelaide, S.A., p. xxvi.
Welch Perrin & Co. Pty. Ltd., Queen's-bridge St., Sth. Melbourne, p. xxv.

Strapping Fruit Cases—

Gerrard Wire Tying Co. Pty. Ltd., 119-25 Hawke St., West Melb., p. iv.
"Ti-it," Murray & Lemmon, 136 William St., Melbourne, p. x.

Tree and Stump Fullers—

Trehwella Bros., Trentham, Victoria, stumping Jacks, etc., xxviii.
"Digger" Multigears Pty. Ltd., 99 Queen St., Melb. (Vic.), cover iv.

Wood Wool.

Cave, F., & Co., p. 526.

"FRUIT WORLD OF AUSTRALASIA."

Representing the Deciduous, Citrus and Dried Fruits Industry of Australasia.

Published the First of each Month.

Editorial and Management Notices.

Articles and Photographs.—The Editor will always be very pleased to receive articles and photographs for publication. Articles on spraying, pruning, drainage, marketing, and other cultural matters, and reports of meetings, are welcomed. Please write on one side of paper only; include name and address (not necessarily for publication). Press matter sent in an open envelope, marked "Printer's MSS.," postage rate: 2 ozs., 1½d. Photographs, if sent in an open-ended package, marked "Photos. only," will travel at 2 ozs., 1½d. A short description of the photos. should be written on the back.

We do not hold ourselves responsible for the views expressed by our correspondents.

Subscriptions.

The annual subscription, post free within Australia and New Zealand, is 8/6. All other places, 10/6, post free. New subscriptions can commence at any date. Subscribers should notify us immediately of any change of address.

Renewal Subscriptions are due during the last month of the term covered by the previous payment, and unless notified to the contrary, the fact that the subscriber continues to accept delivery of the journal, is taken as proof that continuation of the subscription is desired, and we will continue to send regularly until notified in writing or copies are returned through the post.

Advertisements.

"The Fruit World of Australasia" is an advertising medium of proved value. Advertising rates may be had on application to our Head Office, or to agents in the various States, as set out below.

Changes of copy for advertisements must be in our hands on or before the 17th of the month prior to publication.

Readers are asked to make their purchases from our advertisers, who cover all lines of interest to orchardists, at the same time mentioning this journal. By so doing, the grower, the advertiser, and this paper will benefit.

Every care is taken to publish advertisements from reliable houses only, and to see that advertisements of an undesirable nature are not published. The management reserve the right to refuse to publish any announcements that they may regard as undesirable, either from the point of view of the goods offered or in the wording of the advertisement, notwithstanding the fact that a contract may have been entered into for the use of a certain space.

"The Fruit World" Offices (where copies and full particulars are obtainable) are as follows:—

Victoria (Head Office): 9 Queen Street, Melbourne. **New South Wales:** Carruthers, Farrum & Co., 77 King Street, Sydney. **South Australia:** W. F. McConnell, Grenfell Buildings, Grenfell Street, Adelaide. **Tasmania:** Saunders & Co., Murray Street, Hobart. **Western Australia:** D. L. Hetherington, Colonial Mutual Buildings, St. George's Terrace, Perth. **Queensland:** Gordon & Gotch Ltd., Queen Street, Brisbane. **New Zealand:** Gordon & Gotch Ltd., Wellington. **Dunedin and Auckland:** Great Britain: Harvey H. Mason, 1 Mitre Court, Fleet Street, London, E.C., England.

R. E. BOARDMAN, A.F.I.A., Managing Director and Editor.

E. H. WRAGG, Secretary and Advertising Manager.

Tasmanian Director: HON. L. M. SHOOBRIDGE, M.L.C.

THOUGHT FOR THE MONTH.

GET KNOWLEDGE ALL YOU CAN; AND THE MORE YOU GET, THE MORE YOU BREATHE UPON ITS NEARER HEIGHTS THEIR INVIGORATING AIR AND ENJOY THE WIDENING PROSPECT, THE MORE YOU WILL KNOW, AND FEEL, HOW SMALL IS THE ELEVATION YOU HAVE REACHED IN COMPARISON WITH THE IMMEASURABLE ALTITUDES THAT YET REMAIN UNSCALED. BE THOROUGH IN ALL YOU DO, AND REMEMBER THAT, THOUGH IGNORANCE MAY OFTEN BE INNOCENT, PRETENCE IS ALWAYS DESPICABLE. QUIT YOU LIKE MEN; BE STRONG, AND THE EXERCISE OF YOUR STRENGTH TO-DAY WILL GIVE YOU MORE STRENGTH TO-MORROW. WORK ONWARDS, AND WORK UPWARDS; AND MAY THE BLESSING OF THE MOST HIGH SOOTHE YOUR CARES, CLEAR YOUR VISION, AND CROWN YOUR LABOUR WITH REWARD.

—W. E. GLADSTONE.

Editorial.**DRIED FRUITS POSITION.**

GROWERS OF DRIED FRUITS (Lexias, Sultanas, Currants) are much exercised in mind regarding the possibilities of the disposal of the coming crops. Indications were generally favourable for heavier crops than the 1924 harvest of 35,000 tons, but hail storms have reduced the anticipated crops to some extent.

Big meetings of growers have been held, both in Victoria and South Australia, and the opinion so far as can be judged, is in favour of a compulsory pool.

In Victoria the great majority of the growers are members of the Australian Dried Fruits Association.

The position in South Australia is somewhat different in that there are considerably more non-associated growers, or "outsiders," as they are generally termed, in that State.

The South Australian Government is believed to favor a compulsory dried fruit pool, although opposition has already been expressed by the Dried Fruit Traders' Association—the organisation which handles the fruit from non-A.D.F.A. members.

The Victorian Government is now drafting a bill for a compulsory dried fruit pool. These proposed measures, however, have to pass the Legislative Councils in both the States named, and it is quite possible that the Bills may be rejected, just as the wheat pool bill was rejected in Victoria after passing the Legislative Assembly. There is

this difference, however, that in the case of the dried fruit growers, the feeling is apparently more favourable to compulsory pools than was the case with the wheat growers.

The basic idea of pooling appears to be the control of the product, so that all growers shall share equally in the losses consequent on the export trade. The opinion is firmly held in many well informed quarters that with more attention to grading, the export trade would be a source of profit.

Admitting the good work of the A.D.F.A. during years past, there can be no disguising the fact that much dissatisfaction exists. A report is published in this issue of the big meeting held at Mildura on October 21st, when a resolution of no confidence in the present board of management of the A.D.F.A. was carried by an overwhelming majority. Further resolutions which were carried expressed an "utter lack of confidence" in the local growers' council, and calling on the officers to resign.

The present position is extremely delicate, and calls for patient and wise consideration.

The one outstanding factor in the dried fruits industry, as with some other sections of the fruit industry, is that of temporary over-production on Government financed lands.

Prior to that the industry was developing along normal lines. There were critics who pointed out that the general public was not sufficiently taken into the confidence of the A.D.F.A.: these were the days when the Association controlled about 95 per cent. of the Australian dried fruits. Certain improvements were also called for in the grading and in the packing shed finance system. Doubtless, however, these matters would have been adjusted but for the new element, viz., the sudden increase in the crops, particularly from the soldier settlements.

But in these days we must take things as they are, and be very practical and far-seeing in making the necessary adjustments.

At the big conference of the Australian Dried Fruits' Association, held at Melbourne last October, a clear indication was given that reorganisation was called for. The basis of representation was then broadened. The recent mass meeting at Mildura shows that growers desire further alterations in the constitution.

Much has been written and said on this subject. Our contribution is in the nature of helpful suggestions.

It seems growers must face these alternatives:—

1. A compulsory pool may not be made law.

2. Even if the Bill be passed, there is no magic wand to wave the growers' problems into thin air. Primary producers' pools are cumbersome and expensive to handle, as experience has already proved in Australia and other parts of the world. The Dried Fruit Pool, according to a Cabinet state-

ment, will have to finance itself, in which respect it will differ from the canned fruit pool, as the latter, besides being voluntary, was financed by the Federal Government.

Under the stress of the present circumstances, a majority of the dried fruit growers, we believe, desire a compulsory pool, and should it be created the experience, even if irksome, will be worth while. In any case, it will be a temporary measure, and, out of the organisation created, the growers may evolve a better system.

3. Failing the enactment of the Compulsory Dried Fruit Bill, the indications point to large quantities being marketed "outside" the A.D.F.A.

4. If the constitution of the new Australian Dried Fruit Growers' Association be widely adopted, and the formation of district councils be proceeded with, a large measure of control will be obtained, thus enabling growers associated with the A.D.F.G.A. to compete on quality and price against non-associated growers on the Australian market.

5. In any case the time is ripe for a bold policy of advertising along educational lines. This need not be unduly expensive.

The industry has the large goodwill of the public and the press, as we pointed out in the last issue of the "Fruit World."

A programme of publicity to seriously increase the consumption of dried vine fruits in Australia would include—

(a) the compiling of bright articles showing the value of the industry to Australia—as regards irrigation, repatriation, decentralisation, immigration, etc. These could be "broadcasted" through the thousands of newspapers and magazines published in Australia.

(b) The publication of educational articles dealing with the value of dried fruits on health, i.e., definitely teaching the public the food and medicinal properties of dried fruits.

(c) The assistance of the medical and dental profession is assured. Organisation would be necessary to make this asset articulate. Lectures could be given periodically in the State and public schools throughout Australia.

(d) By holding a "Dried Fruit Week" all the publicity could be concentrated in big shows, say, at the Town Halls in the State capitals. From these centres there could radiate all the desirable influences and propaganda. Window displays would be arranged in the various drapery and other shops in the cities and suburbs, as well as in country towns. Demonstrations could be given in the art of preparing dried fruits for the table. Lectures could be given to business men (especially invoking the aid of the commercial travellers' clubs) and to afternoon meetings of women.

Health talks, advocating dried fruits, could be broadcasted daily by wireless.

6. It is hoped the Canadian-Australian trade treaty will soon be ratified, which will give Australia enlarged opportunities for export, though it will be well understood that California will not be easily ousted from the Canadian market.

An indication of the competitive market prices is seen in the following quotation taken from a recent issue of the "Californian Fruit News":—

Raisins—1923.

Sun-Maid Raisin Growers prices:—	Cents
Seeded—	
Sun-Maid, 15 oz.	9
Bakers (in 30s)	7½
1-crown (in 30s)	6½
Loose Muscatels—	
3-crown (in 25s)	8½
2-crown (in 25s)	7½
Seedless—	
Thompsons, 15 oz.	9
" bulk (in 25s)	8
" bakers (in 25s)	8

PEAR GROWERS' ORGANISING.

PEAR GROWERS in Victoria are seeking means to better organise their section of the industry. The idea is to be heartily commended. After the preliminary meeting, when the idea was approved, a committee went into details and finally drafted a report which is published in full in this issue. The meeting, which is called to meet at Shepparton on November 13, should be full of interest.

It is noted from the report that the desire is first to "take stock," as it were, of the particular fruit under review, to discover accurately the acreage of bearing and non-bearing trees, the average production, the cannery and market requirements. To endeavour to regulate the markets, and in so doing to work in harmony with the canners, wholesale and retail fruit handlers.

This is sane and laudable, for it is better to commence in a modest way and to build steadily; "work well begun is half done." Too many organisations have started during the past few years with a flourish of trumpets and the boom of platform guns, condemning every avenue of trade and promising to revolutionise the industry and the whole earth within a year or so. But one after the other these mushroom organisations have "had their day and passed away."

Organisation is needed in the fruit industry, each section having its particular needs. By means of cool stores the Apple growing industry is now on a firm basis. And the next few years will see still closer co-operation for marketing purposes between these cool stores.

Pear growers have set out on a definite programme, and deserve every success, though it is hoped the Association will be brought into being even if the initial membership does not represent the desired seventy-five per cent. of the area under Pears.

News in Brief.

The New Zealand Government, it is expected, will renew its usual guarantee of 1d. per lb. for 300,000 bushels of Apples to be exported in 1925.

South Australia shipped under 2,000 cases of Oranges this season, but the prices were satisfactory, averaging 25/- per case.

It is proposed to arrange for the drying of the increasing crops of Apricots at Griffith, Murrumbidgee Irrigation Areas, N.S.W.

Investigations into the cold storage of Apples indicate that a storage temperature of 34 deg. F. to 35 deg. F. is better than 32 deg. F.

Canned Grapes from South Australia have met a favourable reception in Queensland. Now, what about some canned Pineapples from Queensland obtaining a similar cordial reception in South Australia?

It is estimated that £160,000 has been advanced to growers under the Commonwealth Dried Fruit Advances Act. The advances are repayable from the 1925 crop.

South Africa exported 6,500 cases of Apples in 1924. It is expected this quantity will be doubled next year.

Favourable reports are to hand from New Zealand regarding the work of the Aphelinus Mali, the Woolly Aphis parasite.

The Wheat Pool Bill, introduced into the Victorian Parliament by the Labour Government, and passed by the Legislative Assembly, has been thrown out by the Legislative Council.

Peach Aphis and Leaf Curl have reduced the anticipated crops of Peaches on the Murrumbidgee Irrigation Areas, N.S.W.

Bird pests continue to be troublesome in fruit districts. The starling is one of the worst pests. It is a filthy and destructive bird. Growers need to take united district action by netting, organised "shoots," and by the establishment of gun clubs to keep the pest in check.

"Wider distribution of shipments is, we think, desirable, as transport charges throughout the United Kingdom are very high," state Messrs. F. W. Moore & Co., London.

The ex-Agent-General for Tasmania (Mr. A. H. Ashbolt) who recently returned from London, has put forward new proposals for regulating and controlling the sale of Australian fresh fruit in the United Kingdom. See details in this issue.

Definite action is being taken in Queensland to abolish the present system of limitation of agents in southern markets.

A conference of Victorian Pear Growers has been called to meet at Shepparton on November 13th, when proposals will be finalised regarding the formation of the Pear Growers' Association.

There are 29,000 acres under citrus in South Africa. Exports for the 1922-23 season totalled 535,412 boxes.

Nearly 3,000,000 boxes of various fruits were exported from South Africa during 1922-23. See details in this issue.

Pear growers in Victoria hope to raise a fund of £1,000 to push the sale of Pears.

A cabled report from Vancouver stated that 25,000 cases of Apples were being shipped from U.S.A. and Canada for Sydney during October per s.s. "Makura." There is, however, a quarantine proclamation in force prohibiting the entry of fruit from any country in which fire blight is known to exist, and until that proclamation be lifted, this fruit cannot be landed in Australia.

Currants are showing for record crop in the Swan Valley, Western Australia.

DRIED FRUITS EXPORT ACT.

Growers to Vote on Its Adoption.

One of the provisions of the Dried Fruits Exports Control Act is that the growers may vote for its adoption or rejection.

Voting forms are being prepared, and will be issued to every grower, enabling him to vote "Yes" or "No" in regard to bringing the Act into operation.

It is important that every grower should exercise his vote in order to give the Government a clear indication of the desires of the industry in this connection.

Organising Open-Air Markets.

In response to a request from the Metropolitan District Fruitgrowers' Association, the Victorian Government has made available the sum of £200, provided that the Association raises £120 amongst its members. The funds are for organising open-air markets, and for similar purposes. Mr. W. H. Everard, M.L.A., displayed his usual appreciated activity on behalf of the growers in advocating the grant.

Held Over.—The following matters are being held over:—Letter from Secretary Victorian Central Citrus Association re orchard tax. Details of suggestions re Australian fruit export from National Fruit Federation, London. Correspondence re Pomological Committee from Mr. S. J. Bisdee, Bagdad, Tas.

Organising the Fruit Industry.

"Efficient Business Management" Necessary

Demagogic Political Organisers Condemned.

"Co-operation" Includes Co-operating with the Wholesale and Retail Trade as well as with the General Public.

THE eighteen associations now in the Michigan Fruit Growers are looking forward to a good year, states the "American Fruit Grower Magazine" for August, 1924. They now have their own sales service, a sales manager who knows Michigan conditions through an experience of 10 years as one of the largest handlers of Michigan fruit. He has had co-operative experience in Michigan and other states. Regarding the problems ahead of the Michigan Fruit Growers, Mr. Granger, the new sales manager, said to the members:—

"My experience has been that given efficient business management co-operative organisations ought to succeed in about the same proportion as private enterprises. Too often, however, co-operative enterprise is founded upon the sentiment broadcast by demagogic political organisers that competitive private dealer business is making too much money and that the middleman is robbing the producer, with the result that when the co-operative association is organised and begins to do business, a competitive business battle then ensues which destroys the confidence of all interests and loses money for the man who is principally interested, the grower. It is interesting to compare this situation with the attitude adopted by the California Fruit Growers' Exchange (Citrus) as outlined by the general manager of that organisation recently, in which he indicated that they had never felt that the middleman was a parasite to be destroyed, but rather a means to the desired end of securing full value for their products. I hope that we in Michigan can follow their example.

"To my mind, the big benefit coming from co-operative organisation is the opportunity to advance the standard of our fruit products through better grading, packing and advertising, etc., so that the whole level of prices may be increased.

"It seems to me that if all the interested factors in the fruit industry in Michigan, co-operative organisations, buyers, distributors and growers, can be brought together to understand the situation, that what hurts one hurts all, then we shall have no trouble in all co-operating to the end that everyone will be benefited. Instead of making competition among ourselves, we should get together to meet the competition forced upon us from other

districts like New York, California and the Northwest and we shall have enough competition to keep us busy in that direction.

"Here's my idea of the requirements of the fruit business in Michigan if we are to put the industry on a solid foundation:

"First—every carload of fruit to be sold on an f. o. b. shipping point basis—not rolled unsold, consigned or sold delivered.

"Second—Every package of our best grades of fruit to be attractively labelled and marked so that the buyer can buy by trademark and be certain he is getting what he bargains for. If we are in the fruit business to make a success of it, we should take pride enough in our product to pack it attractively."

ENGLISH SCIENTIST COMING.

Cabled advices are to hand to the effect that Prof. A. J. Smith, of the low temperature station, Cambridge University, will sail for Australia by the steamer "Surrey" on November 1st. He will resume the investigations he commenced in 1923 relative to bitter-pit and brown-heart in Apples, and will note the conditions in ships' holds during the voyage. He hopes to be able to arrange to take 300 cases of English Apples in the "Surrey's" refrigerator for observation.

[This is good news, which will be appreciated by all growers. The value of this scientific work cannot be over-estimated.—Editor, "F.W."]

IMPERIAL FRUIT SHOW.

Victorian Growers Again Successful.

A cablegram received by Dennys, Lascelles Ltd., reports that Mr. E. G. Wood, of Riverside, Kerang, has been awarded first prize and gold medal, as well as third prize with bronze medal, for Washington Navel Oranges exhibited by him at the Imperial Fruit Show now being held at Birmingham. Mr. Norman M. Brooke, of Murrabit, won the second prize, with silver medal, at the same show.

This is the third occasion in succession which Mr. Wood has secured the first prize. The competition was open to fruitgrowers and associations of fruitgrowers in any part of the British Empire. The success of the Australian exhibits has proved that the Navel Orange grown along the Murray River is equal, if not superior to the best Californian fruit.

Manuring Citrus.—Mr. F. W. Jefferson, Kyabram, draws attention to the paragraph which appears under his name in our October issue, page 466. The paragraph states that the August-September application is 4 cwt. superphosphate to the acre, same to be hoed in, and dressed with 2½ cwt. to the acre. The latter should read "2½ cwt. nitrate of soda to the acre." The words "nitrate of soda" were omitted last issue.

**BRITISH, CANADIAN AND U.S.A.
APPLE CROPS.****Lighter Than Last Season.****Prospects are Good for Australian
Exports.**

The English Apple crop of 1924 will be much below the 1923 production estimate of 3,608,889 barrels, according to cabled advices from Edward A. Foley, American Agricultural Commissioner at London. The crop in the counties of Essex, Lincoln, Cambridge and Norfolk is 50 per cent. below last year. Kent, Middlesex, and Somerset report a 10 per cent. decrease and Worcester 30 per cent. Cooking Apples are 20 to 30 per cent. below the 1923 yield. Cider Apples fell off 20 to 40 per cent. Dessert varieties have made a light crop.

June estimates of the Canadian Apple crop place yields at 3,716,630 barrels, which is about 16.6 per cent. below the 1923 figure of 4,459,850. Fruit crops are largely determined at the time the blossoms fall in the spring. There is little chance, therefore, for a revision of these figures other than downward, either in Canada or England. With fewer Canadian Apples offering competition in England and a short domestic crop, the outlook in English markets for American Apples is good.—“Crops and Markets.”

U.S.A. Crops.

Much more than the usual quantity of Apples, Peaches, Pears and Grapes will be produced this season in the Eastern and Southern States, according to the July forecasts of the United States Department of Agriculture.

The total production of Apples in the United States this year is expected to be 196,000,000 bushels, or almost exactly the same as it was last season. The crop is distinctly better than last year in most of the North Atlantic, South Atlantic, and South Central States, but everywhere else is materially smaller than that of last year. During the past ten years the crop has five times been larger and five times smaller than the forecast for this season.

APPLES FOR GERMANY.

Germany is again receiving fruit supplies from all parts of the world. Fruit merchants in Hamburg are seeking to arrange direct shipments between Australia and that port. It is understood that in view of the fact that supplies of Apples are transported from Great Britain, the Hamburg market could profitably absorb only 30,000 cases per direct boat from Australia.

On the other hand, shipping companies point out that they cannot divert their steamers unless they receive cargoes of at least 50,000 cases per boat. The matter is still being negotiated.

Pear Growers Organising**Activity in Victoria.**

A Draft Scheme has been Prepared for the big Conference, to be held at Shepparton on November 13th.

A CONFERENCE of Pear Growers was recently held in Northern Victoria, when a committee was formed to draft rules for the proposed Victorian Pear Growers' Association.

The committee has done its work, and has drafted a scheme as set out hereunder. These proposed rules have been widely circulated, and a conference has been called to meet at Shepparton at 1.30 p.m. on Thursday, November 13th, to go into the whole matter, if approved, to launch the Association.

Objects.

1. To officially represent the Pear growers of Victoria.
2. To further the interests of members as Pear growers.
3. To advise growers of the best methods of picking, grading, packing and marketing the fruit.
4. To develop the export trade in Pears.
5. To obtain suitable cool storage for Pears as required.
6. To procure statistics of the
 - (1st) area, (a) bearing, (b) non-bearing.
 - (2nd) Varieties, (a) bearing, (b) non-bearing.
 - (3rd) Approximate crop (annually).
 - (4th) Cannery requirements (season).
 - (5th) Market requirements (weekly).

N.B.—When sufficient information is available the Executive will advise growers in what proportions to distribute their consignments to the various markets.

7. To enlist the co-operation of canning factories, commission agents, retailers and others in our efforts to dispose of fruit.
8. By advertising and propaganda to increase the consumption of the fruit.

Management.

This Association shall be governed by the votes of accredited delegates meeting in conference. Each district growing Pears shall elect one or two delegates (as preferred) who shall represent the Pear growers of that district.

Votes.

Each district shall be entitled to one vote for every 10 acres of Pears (planted five years or over). Votes may be given by proxy.

The conference of delegates shall elect (1) a President, (2) a Vice-President; (3) three members of committee. These shall form the executive committee and act as the governing body till the next election. They shall appoint a Secretary and Treasurer, and fix his duties and remuneration.

Membership.

Individual members shall be enrolled (a) after payment of an entrance fee of 1/- per acre on all Pears planted five years or more, held by him (paying a similar fee on younger trees as they become 5 years old); (b) by signing the agreement to keep the rules of this Association.

Finance.

To obtain the necessary finance a small levy on all Pears marketed will be made.

This committee recommends that a levy of—

- (a) One penny per case be paid on Pears sent to the market, this amount to be deducted by the agent and sent to the secretary;
- (b) 2/- per ton be paid on all Pears bought from members by factories, this to be deducted by the factory and sent to the secretary.

(Where growers market their fruit or agents sell to factory special arrangements will be made to collect the levy).

Meetings.

Meetings of delegates shall be called by the President when required.

Special Meetings.—If requested by delegates from three or more districts the Secretary must call a meeting of delegates within 10 days.

An annual meeting to be held in November.

Members may resign from this Association, provided they have paid the fees and levies due, by giving six months' notice in writing to the Secretary.

The Association will have the right to expel members if their actions are detrimental to the progress of the Association, provided one month's notice in writing be given to the member and delegates, and on a vote being taken two-thirds (2-3rds) of the votes are given against that member. The committee also recommend

(1) That the co-operation of the local fruitgrowers' associations be invited to assist in forming this association by electing a committee representative of the local Pear growers who shall appoint the delegate to the Victorian Pear Growers' Association, and enrol members and collect membership fees in that district.

(2) That the travelling expenses of delegates be paid by the Treasurer of the Central Association.

(3) That the Association invite the Victorian Government to appoint a representative to attend meetings of the Executive.

(4) That the Central Association will investigate definite complaints when placed before the Secretary by members.

(5) That the latest information regarding cool storage of Pears will be obtained and supplied to interested members.

(6) That it is not advisable to form this Association unless 75 per cent. or more of the area under Pears be held by the growers becoming members.

New Tests Tell Picking Maturity of Pears

By HENRY HARTMAN,

Associate Professor of Pomology, Oregon Agricultural College, Corvallis, U.S.A.

STUDIES relating to the harvesting and storage of Pears have been in progress at the Oregon Experiment Station (U.S.A.), since 1917. Already, four reports dealing with various phases of these investigations have been published. The present paper is largely a resume of the results obtained in 1923 by the home station at Corvallis, states "Better Fruit."

Pressure Test for Maturity.

In view of the fact that a great deal of the material presented here relates directly or indirectly to the pressure test, a short account of this test and the principle upon which it is based is opportune. Though several tests of maturity were considered it soon became apparent that any reliable test applicable to the Pear must be based wholly or in part "upon the physical rather than the chemical contents of the cells."

The pressure test, which embodies this principle, is based upon the fact that during the growth and ripening of the Pear there is a gradual and consistent lowering of the physical resistance to pressure or wounding of the outer tissue. The decrease in resistance, in the case of Bartlett (W.B.C.) is close to two per cent. every 24 hours.

To measure the changes in resistance a simple apparatus now known as the "pressure tester" has been perfected. This instrument merely expresses in convenient units the gradual changes in resistance that take place from time to time.

This test has been in use for several seasons in some of the Pear districts of Oregon and elsewhere, and, in the main, has given satisfactory results, not only as an indicator of picking maturity but as an index of the condition of the fruit in storage. There is but little doubt that this test, intelligently administered, would do much to prevent losses incident to the harvesting and storing of Pears.

It is now clear, however, that the pressure tester is not a fool-proof instrument, and that it is efficient only when operated by some careful person who has made a study of the factors involved. Recent experience has shown that the pressure tester is influenced by several factors, chief among which are (1) temperature of the fruit itself, (2) removal of a portion of the crop, (3) drought, (4) amount and character of the russet, and (5) intensity of the red or "over" colour.

Time of Picking as Related to Ripening.

Representative lots of Anjou, Comice, Winter Nelis and Bartlett were gathered at intervals of 3 to 5

That there is much to learn as regards the correct time for picking Pears is recognised by all fruitgrowers.

The article herewith gives a summary of the results of experiments extending over seven years.

Our readers in Australia, New Zealand and South Africa must allow for the seasonal difference of six months as compared with Oregon, U.S.A.

The wide range of subjects studied and reported on by American Agricultural and Horticultural Colleges sets a bright example, worthy of emulation before Australians. We are lagging far behind in these matters.—Editor.

days during the picking season. Pressure test readings were made of each lot and the fruit was then placed in storage at a temperature of 66 degrees, and a relative humidity of 52 to 56 per cent. Careful observations were made from time to time with the aim of ascertaining, as far as possible, (1) the effect of time of picking on the ultimate quality and time ripening, and (2) the proper time of harvesting as indicated by the pressure tester.

Anjou.—Ten separate pickings of Anjou were made between August 29 and October 5. Pears from the real early pickings invariably developed inferior quality. They were undersized for the variety, and displayed considerable wilt. They were somewhat astringent, lacked in sweetness, and tended to ripen unevenly. Those picked late in the season lacked a little in juiciness, but, in the main, were of good quality. It appears from these data that Anjou has a comparatively long picking season. All the fruit picked between September 4 and September 28, developed full Anjou quality and held up well. So far as these tests indicate, Anjou in the Willamette Valley may be safely picked for eastern shipment when the pressure test readings are between 24 and 19 pounds.

A considerable difference was noted in the time required for Anjou to reach prime eating condition when harvested at different times. Fruit picked on August 29, required 54 days to ripen while that picked on October 5, was ripe in 26 days.

Comice.—Beginning with September 17, and ending with October 19, nine separate pickings of Comice were made. These were handled as indicated in the case of Anjou. The fruit of the early pickings, as before,

developed only inferior quality. It was undersized and showed a great deal of wilt. It lacked in sweetness and was more or less astringent.

Late picked fruit lacked somewhat in juiciness and went down very rapidly, due to rotting at the core.

Comice, unlike Anjou, seems to have a rather short harvesting period. Only the Pears picked between October 1 and October 9 developed real Comice quality. Indications are that Willamette Valley Comice should be gathered when the pressure test registers between 20 and 18 pounds.

Comice of the first picking required 53 days to reach prime eating condition while those of the last picking reached this condition in only 13 days.

Winter Nelis.—Eight separate pickings of Winter Nelis were made. This variety, like Anjou, seems to have a comparatively long picking season, excellent quality resulting in all Pears picked between October 1 and October 20. The results of this test indicate that Winter Nelis should be harvested when the pressure tester registers a resistance of 33 to 29 pounds on fairly clear-skinned specimens.

Bartlett (or Williams' Bon Chretien).—During the period from August 18 to September 18, nine separate pickings of Bartletts were made. The data obtained from this fruit correspond very closely with that previously given for this variety in other reports. In general, fruit gathered at mid-season developed the highest quality. Late-picked fruit, while suitable for drying and canning, does not hold up sufficiently long for distant shipment in the fresh state. That picked really early goes down rather rapidly when ripe, wilts badly and does not develop real Bartlett quality. The recommendation of Murneek to the effect that Bartlett Pears should be picked when the pressure test registers between 35 and 25 pounds was sustained by these tests.

Loss of Weight and Volume After Harvest.

It is a matter of common knowledge that fruit loses weight following removal from the tree or vine. Loss of weight while in storage may amount to as much as 15 per cent. of the total weight of the fruit in extreme cases. Two factors account for loss of weight in fruits: (1) natural decomposition, and (2) excessive loss of moisture. Loss of weight through natural decomposition, however, is usually of minor importance compared with that occasioned by excessive loss of moisture, which, in general, is governed by (1) relative humidity, (2) aeration, (3) temperature, (4) time of picking, (5) condition of the

outer covering, and (6) kind and variety of fruit.

Bartlett Pears of the first pickings lost as much as 13.9 per cent. of their weight in 408 hours, when kept at a relative humidity of 52 to 56 per cent. When kept at a relative humidity of 80 to 85 per cent., however, the loss was reduced to 1.1 per cent. Pears gathered during periods of low relative humidity may lose considerable weight if left unprotected in the orchard or packing house. Bartlett's of the first picking showed a loss of nearly four per cent. when left out in the orchard for four days. It was found, however, that much of this loss can be avoided by covering the boxes with wet canvas.

Excessive loss of weight invariably results in wilting, which seriously impairs the appearance of the fruit. Wilted Pears, in the main, have lost their gloss and waxiness, are dull and unattractive and do not become aromatic.

In the case of Bartlett, Anjou and Comice it was found that a loss of weight of three to four per cent. was sufficient to cause noticeable wilt. There is no indication, however, that wilted Pears go down more rapidly. Fruit in this condition seems to be slightly more resistant to attack of decay organisms.

Both growers and dealers are aware of the fact that Pears frequently lose volume following removal from the tree. Tightly packed boxes often become slack while in storage or transit. Loss of volume seemingly is associated with loss of weight. Every loss in weight is accompanied by a corresponding loss of volume. Bartlett Pears of the first picking which showed a loss of 13.9 per cent. in weight after 408 hours in storage, showed a loss in volume of 14.5 per cent. Loss in volume, like loss of weight, can be materially reduced by storing at a fairly high humidity.

Crop in Relation to Degree of Maturity.

As indicated by the pressure test, there is a relationship between the amount of crop present on the trees and the degree of maturity of the fruit. Fruit from heavily loaded trees was at least 10 days in advance of that from lightly loaded trees. This difference seems to obtain throughout the harvest season and is sufficient to account for much of the unevenness manifested by Pears after picking.

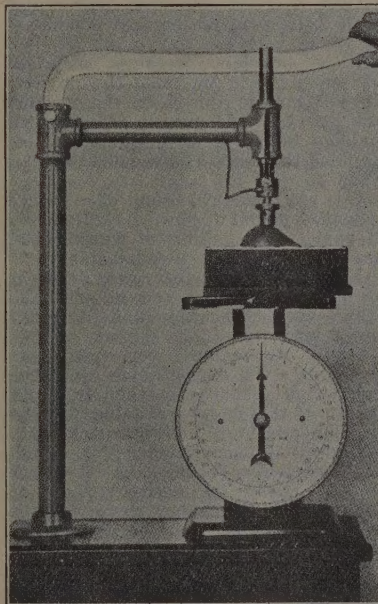
Again, as the caliper measurements indicated, fruit from lightly loaded trees, though less mature, is usually larger in size. This is significant since in many instances Pears are picked according to size. Obviously where this practise is in vogue the less mature fruit is frequently the first to be gathered.

General Indicators of Maturity.

The general indicators of maturity in Pears again received attention during the present investigations, and a brief digest of the observations is given here.

Ease of Separation from the Spur.

—Ease of separation from the spur does not seem to be a reliable indicator of maturity in Pears. This factor, seemingly, is associated with the moisture conditions of the tree and fruit. When moisture is abundant and turgidity is high, most Pears separate quite readily from the spurs though they may be comparatively green. But, when the moisture is limited and turgidity is below normal, the fruit tends to cling regardless of maturity. This is especially true during the early part of the harvest season.



Modern pressure test device developed at Oregon U.S.A. Agricultural College to determine maturity of pears.

Size of the Fruit.—Though often resorted to in actual practice, size of fruit is not an indicator of maturity according to findings in these investigations. The larger specimens are usually no riper than are the smaller ones; in fact, as already pointed out, there are instances where the smaller specimens in the same orchard are actually much riper than are the larger ones.

Ripening of Imperfect Specimens.—With most varieties of Pears, wormy or otherwise imperfect specimens often fall to the ground and ripen considerably in advance of the normal crop. This has proved to be a fairly reliable indicator of maturity. So long as the imperfect specimens fall to the ground and merely shrivel up without ripening, it is safe to assume that the normal fruit has not reached picking maturity, but as soon as these specimens are observed to turn yellow and soften up without excessive shrivelling, the bulk of the crop can generally be picked without danger of sacrifice in quality.

Colour of the Seeds.—In some of the fruit districts of eastern United States, the colour of the seed is often employed as an indicator of maturity. In Oregon, however, this factor has proved to be extremely unreliable, the color of the seeds varying widely with the season, moisture conditions and age of the trees.

Changes of the Ground Colour.—Two distinct colour elements may be associated with the Pear. First, there is the blush or "overcolour," which seemingly is brought on by factors other than those associated with ripening and which has, therefore, no value as an indicator of maturity. Second, there is the ground or "undercolour" which during the period of maturity, usually changes from a dull green to a light green or yellow, and which may be of considerable value in determining time of picking, especially in the clear skinned varieties, such as Clapp's Favourite, Bartlett, Howell, Anjou and Comice.

The change in ground colour in most Pears takes place in a rather characteristic manner. The surface for the most part, becomes lighter in colour with the exception of a small area immediately surrounding each lenticel or breathing pore. This gives the Pear a more or less speckled or dotted appearance. In the case of Bartlett, this speckling usually occurs when the pressure test registers around 38 pounds. This would mean that the first picking of Pears for eastern shipment may be made ordinarily from 5 to 8 days following the appearance of the green dots.

Nature of the Bloom.—Most of the deciduous fruits during the period of growth and maturity are covered with whitish "bloom" which gives the fruit a characteristic bluish or gray tinge. In the case of Pears, the bloom is usually more or less insignificant, yet may be of some value as an indicator of maturity. During the period of growth Pears of the clear skinned type have a rather dull appearance because of this bloom, but as the fruit approaches maturity, a portion of the bloom disappears and the Pear takes on a brighter and waxier finish. This is noticeable especially in the case of Bartlett.

Utilisation of Night Temperatures.

Cool night temperatures are characteristic of the climate in the fruit sections of the Pacific North-West. This is true not only during the fall of the year but also during the summer months. It is not uncommon for the temperature in the orchard to vary 50 degrees between night and day.

Cool night temperatures are an asset to the fruitgrower if he would only utilise them. Fruit harvested during the hot part of the day will give up much of its heat if left out in the orchard where air circulation is abundant. Bartlett Pears at Corvallis registered a temperature of 104 degrees when gathered in the middle

of the afternoon on August 20, but when left under the trees during the night, their temperature went down to 63 degrees F., a reduction of 41 degrees. It is safe to say that half the cost and burden of precooling can be eliminated by utilisation of night temperatures at harvest time.

Red Colour Indicator of Keeping Quality.

Some fruit districts in Oregon are noted for the amount of blush or red colour which develop on Pears. This is especially true in the case of Bartlett and Comice. Experiments show that such Pears hold up considerably better than those which are uncoloured. Invariably they are firmer in texture and show less wilting and "leathering." They require somewhat longer to reach prime condition and remain firm for a longer time after ripening. They are especially desirable for long distance shipment, and growers who habitually produce such Pears might profit by capitalising this advantage.

Core Rot of Pears.

Core rot evidently is a physiological disease, occasionally found in Apples and frequently in Pears. It is primarily a storage disease, although not infrequently core rotted fruit is present on the trees. This trouble is characterised by breakdown of the core area and surrounding portion of the fleshy torus.

A foul odour is generally present in the advanced stages. In most cases, the fruit is sound to outward appearance. The disease usually makes most progress as the fruit approaches prime eating condition. All varieties of Pears seem to be more or less susceptible to core rot, but of the common sorts, Bosc and Comice are most frequently affected.

Though at this time not a great deal is known concerning the nature of core rot, the trouble appears to be associated with over-maturity. Of the various lots of Pears under observation during these tests, it was only in the cases of late picked fruit that core rot developed to any extent.

The various lots of Bartlett picked between August 18 and September 11, showed no evidence of the disease, but those picked on September 14 developed five per cent. core rot and those picked on September 18, only three days later, developed over 60 per cent. core rot.

Comice picked between September 17 and October 10 showed no core rot in storage. Those picked on October 13, on the other hand, developed 31 per cent. core rot, while those picked on October 19, developed 100 per cent. core rot.

Don't Worry.

Worry pulls down the organism, and will finally tear it to pieces; nothing is to be gained by it, but everything is to be lost. Look out for the bright, the brightest side of things, and keep thy face constantly turned to it.

SEASONABLE SPRAYING NOTES.

Fighting the Codlin Moth.

THERE IS NOW a fairly well defined programme of spraying to fight the codlin moth and grub, but it is always interesting to read what our American friends are doing. By last mail there came to hand the Farmers' Bulletin No. 1326, issued by the U.S.A. Department of Agriculture, giving a lot of useful hints and illustrations relative to methods of combating the codlin. We give hereunder a concise summary of their recommendations:

Own a good spraying outfit and keep it in good mechanical condition. It pays!

Have sufficient pressure to break the spray into a fine mist. If your outfit will not do this with the nozzles you are using, put in discs with smaller holes, or use fewer nozzles. Replace the discs as the holes become worn.

Use any standard brand of arsenate of lead, 1 pound of powder or 2 pounds of paste to 50 gallons of water. The use of a spreader is advisable.

Never omit the calyx spray. Put it on as soon as the petals have fallen. Spray very thoroughly and fill every calyx cup.

Apply as many cover sprays as necessary. Get expert advice as to the number necessary and when to apply them. If this is not available, use the recommendations contained in this bulletin. Be particularly thorough with the cover sprays for the first brood. Spray the entire surface of each fruit. Remember there is fruit in the centre of the tree and in the top.

Do not apply very late sprays or use more than the standard amount of arsenate of lead. Either course may result in objectionable spotting of fruit at harvest time.

Hold to your spray schedule. Do not let other orchard operations interfere with it.

If the grower desires to make up his own casein spreader, the most convenient formula is:—

Water 1 gallon
Caustic soda (common lye) 3 ounces
Powdered casein 1 pound

Bring the water to the boiling point, add the caustic soda and as soon as this has dissolved, sift the casein in slowly and stir thoroughly to avoid

lumps until dissolved. Use 1 pint of this mixture to each 100 gallons of spray. This mixture will keep only a few days and must be made up fresh as needed.

CONTROL OF CHERRY APHIS.

Spraying Methods.

Experiments are being conducted by the Horticultural Division of the Victorian Department of Agriculture in conjunction with the Science Branch for the purpose of controlling the Cherry Aphis.

On the 11th August last, sixteen trees were sprayed at Mr. Hardidge's orchard at Croydon. Eight trees were sprayed with Red Oil (Gargoyle) only, at a strength of 1 in 20, and eight were sprayed with the same strength emulsion plus Nicotine Sulphate at the rate of 1 pint to 80 gallons. Two trees were left in the middle of the rows as a check.

The trees were examined on the 21st August and the aphis eggs on the sprayed trees appeared to have changed to a rusty brown color and were mostly shrivelled. On the 15th October the trees were again examined. There was no appreciable difference between the trees sprayed with oil only and those sprayed with oil plus Nicotine Sulphate. There was, however, a marked difference between the sprayed and unsprayed trees. The check trees were rather badly affected with aphis. Those sprayed, while not entirely free, had only a few leaves affected.

An adjoining row of trees was sprayed by Mr. Hardidge about a fortnight later with Gargoyle Red Oil, 1 in 25. These, while slightly cleaner than the unsprayed trees, were not nearly so free from aphis as those sprayed earlier with the stronger emulsion. It would appear from the above that to destroy the eggs, a strength of at least 1 in 20 is required, and that the oil should be applied before the aphis hatch; also, that at this time, the addition of nicotine is of no value.

On the 18th October, the trees were sprayed with nicotine and soap, and some with a patent preparation.

These experiments are being continued and further reports will be published.

Codlin moth spray schedule for Apples.—

Spray.	Time of application
1. Calyx spray	When most petals have fallen.
2. First cover spray	3 weeks after 1.
3. Second cover spray.	8 to 10 days after 2.
4. Third cover spray.	16 to 20 days after 2.
5. Fourth cover spray.	6 to 7 weeks after 2.
6. Fifth cover spray	10 or 11 weeks after 2.

Codlin moth spray schedule for Pears.—

Spray	When most petals have fallen.
1. Calyx spray	When most petals have fallen.
2. First cover spray	Three weeks after 1.
3. Second cover spray.	2 weeks after 2.
4. Third cover spray.	7 or 8 weeks after 2.
5. Fourth cover spray.	2 or 3 weeks after 4.

Fruit Growing under Irrigation

Summer Pruning : Vines : Cultural News.

(By Our Special Correspondent)

Summer Pruning.

DURING November, December and done to shape trees and vines, early January much can be thus in many instances gaining a season in framing the plants. In older trees and vines judicious thinning out of crowded shoots will tend to allow free circulation of light and air into the centres of the plants, to ripen the next season's fruiting wood. The reduction of strong wood shoots, where they are not required for framing, to within some four or five buds of their base, will tend to force out short fruiting shoots in the case of trees, and with rod pruned vines, such as Sultanas, Waltham Cross and Ohanez, secondary canes with short internodes. These canes usually make better fruit bearing rods, than the canes with long internodes.

Trees.

IN the first season but little summer pruning will be required, the tree should be encouraged to make as much leaf growth as possible, the root system develops in equal ratio to the top growth. The greater the leaf surface the greater the root development. The first summer's operations will be practically restricted to the suppression of suckers and shoots arising on the lower portion of the stem. Where one or two of the leading shoots are noticed growing more strongly than the rest of the leaders on the tree, they can with advantage be checked

by pinching out

the growing point. This operation will give the vigorous shoots a temporary check, while the weaker shoots go on growing, thus tending to equalise the vigour of the whole of the branches. Two or more visitations around the young trees during the season checking the vigorous shoots will be advantageous.

During the second and third summers, with a little thought and care, one can cut the leaders, if necessary, causing them to sub-divide and fill in spaces in the circumference of the tree. By tying the young shoot into a position, in the case of building up against the wind or the filling in of a gap in the framework, it will harden during the season, and by the winter will remain in the position in which it was held without the assistance of the tie.

By cutting the leaders on to laterals the shape of the tree may be improved, taking care to cut to a lateral pointing in the direction it is desired to continue the branch. Trees which are growing too upright may be broadened in this way.

Where trees are over-dense, if left

untouched during the summer, the fruiting wood on the inside of the limbs

does not mature

owing to the lack of sunlight. By removing some of the dense shoots (taking care to leave sufficient foliage to protect the tender bark from the direct rays of the summer sun), and admitting light and air, the retained shoots are ripened, the buds develop, thus giving a good selection of fruiting wood for next season's crop.

In many instances, strong wood-shoots are noticed arising in the centre of the trees, especially is this the case with Apricots, and also on the tops of the leaders. Summer pruning will, if done while the sap is still active, will tend to force out from these shoots, short fruiting wood. These strong wood shoots

should be reduced

to within about 6 inches of their base. Judgment must be shown in dealing with the wood shoots at the end of the leaders; select those which are required for the extension of the arms, and leave them unpruned, if it is not desirable to sub-divide or to divert them in another direction. In some cases the shoots in this position are found too dense, where this is so some may be cut back to their base buds, reducing the others as already explained.

Vines.

DURING the first season little advantage is gained by summer pruning, the vines should be encouraged to make leaf and root growth.

At the second winter's pruning most of the vines will be cut back to one spur of two buds. Care should be exercised to keep down all suckers and shoots arising from below the spur. Encourage the two shoots from the spur to grow strongly until the

"brittle stage"

is passed. The idea of retaining two shoots is, that in the case of accident, one shoot being broken off, the second is available to train up as the stem, whereas if only one shoot were retained and that became damaged, difficulty would be experienced in forming the vine. After the "brittle stage" is past, and there is little danger of the shoots being broken off, the best one is selected, and the other cut away.

Where the vines are to be framed on the bush system, the shoot is trained up a stalk, and when it has grown past the point by several inches, at which it is desirable to head it back, the shoot is pruned to the required height. From the buds in the axils of the leaves will arise along the

greater length of stem, lateral shoots. The top ones

should be retained

to form the first portion of the framework of the arms, the lower shoots should be cut back near to their base, retaining the last couple of leaves to shade the tender back of the shoot from the hot rays of the sun.

Most of the vines grown under irrigation are for the most part trained on trellises, in such cases the shoot which is to form the stem of the vine is encouraged to grow until it passes the wire, on which the arms are to be framed, by a few inches. If the vines are to be trained as espaliers the shoot is cut back to the wire. From the lateral shoots that arise, the two (these are usually the top two) which are in the best position for framing the arms, are retained, and the others reduced back to within a couple of leaves of their base from time to time. These lateral shoots by winter will have grown sufficiently to form the first portion of the arms of the vine. When it is desired to frame the vines as cordons, the shoot is not reduced back to the wire, but is encouraged to grow. As soon as the shoot is pliable enough to bend at the wire without breaking off, it may be laid down on the wire to frame the arm. Lateral shoots will, of course, arise, these must be reduced back from time to time, especially where they are growing

from the stem

below the wire. The bend of the stem will, to a certain degree, reduce the flow of sap to that portion of the shoot that is placed along the wire, consequently the lateral shoots arising on the stem will be in a better position to draw upon the sap supply, and if left unchecked will develop strongly to the detriment of the permanent arm. Never strip the leaves from the young stem, as the tender bark will sun-scald and harden, if left unshaded, thus reducing the sap flow, with a consequent weakening effect upon the vine.

As the vines increase in age there is less need of summer pruning, the operation being almost wholly confined to topping. Topping should only be followed where the vines are vigorous; medium and weak growing vines will be further reduced in vitality by heavy topping.

On very vigorous

Current vines topping at the time of cincturing will aid in setting the crop, and on dense vines if followed out when the fruit is ripening will materially assist in ripening the fruit evenly by allowing free entrance of sunlight to it.

With vigorous Sultanas, Waltham Cross and Ohanez vines early topping will force out lateral canes that can be used with advantage for fruiting wood at the next winter's pruning.

Should vines show any weakening effect on the topping operations, they should be allowed to go untopped in order to regain their vigour.

Cold Storage In Australasia

Internal Breakdown of Apples

Soils, Pruning, Cultivation, Manuring, Irrigation, Drainage and the Age of Trees are factors in determining the "Storage Life" of Fruit.

A paper read by Mr. D. B. Adam, B.Ag. Sc. before the Annual Conference of the Fruitgrowers' Cool Stores Association of Victoria.

INTERNAL BREAKDOWN or "sleepiness" in Apples, is, speaking generally, I think the most serious affecting their storage qualities. For this reason, it should merit our best attention. There are different forms of internal breakdown, but whether they are really different in nature, at present I am not prepared to say. But since these differences do exist, they allow us to divide up the subject for more particular study.

"Brown Heart" is a form of breakdown. In this case it seems to be reasonably well established that this disease is due to excess of carbon dioxide. This disease is, however, peculiar to transport conditions, and occurs rarely, if ever, in land cool stores. In appearance, Apples affected with Brown Heart are quite firm, and do not show any obvious external signs of disease, the cutting in two areas about the core or in other parts are seen to be browned and dried out, the Apple, while it is a bit springy, is not soft or "punky." So much for Brown Heart.

A second type of internal browning is observed in the Jonathan, Rome Beauty and such varieties; this is the most familiar form.

In common with "scald," and other cool storage diseases, the severity of its onset is governed by conditions in both the orchard and the cool store.

I propose to consider some of these factors, and their effect on the disease. Firstly, to deal with orchard conditions:—

In the past a great deal of contradictory evidence has been put forward as to how orchard conditions affect subsequent keeping qualities. In fact, I almost think that perhaps no two men agree entirely on this question. In the Pajara Valley of California, U.S., America, a good deal of work has been done on this question by Ballard, Magness and Harding. It was found that fruit stored from different trees in the same orchard differed in keeping qualities; and, secondly, that certain trees varied a great deal from year to year, so that the ability to produce sound or un-

In this interesting article, Mr. D. B. Adam, B.Ag.Sc., the scientist attached to the Victorian Department of Agriculture for cold storage investigational work, sets forth his views on three forms of internal breakdown of Apples, and states:—

That "Brown Heart" is due to an excess of carbon dioxide.

That cultural conditions play an important part in the resistance of the fruit against storage diseases.

That a temperature of 34deg. to 35deg. F. seems preferable to 32deg F.

Mr. J. C. Harrison who was associated with Mr. Adam in the investigations last season, details the result of his enquiries relative to soils, drainage, cultivation and manuring.

The Victorian Government is to be congratulated in having inaugurated these experiments, and on the calibre of the men selected for the work.

sound fruit was not an inherent characteristic of the tree itself.

The difference must then be due to the condition of the environment, especially the soil environment.

Soils and Moisture.

Soils, of course, vary very much in different parts, both in their actual fertility, their water-holding capacity and their ability to give up these materials to the growing Apple tree. The soil on a flat is generally richer, deeper, and moister than that on the hillside. How do Apples from each of these places keep?

There is one point in connection with internal breakdown in Apples which is perhaps more clearly established than any other, which is, that the over-grown individuals of any variety are liable to go sleepy. This fact, which has been noted in America, has persistently come under our own observation, and is I believe, the general opinion of growers.

Mr. J. C. Harrison, who has been associated with me this year, and

who has in fact actually carried out the experiments so far, has interviewed quite a large number of growers this season on the question of internal breakdown and orchard practice. This season was particularly opportune for such an examination and collation of data, since, unfortunately for growers, the disease has been severe in some quarters of the peninsula.

[A summary of Mr. Harrison's investigations is published at the conclusion of this address.]

Although observations, such as the ones reported here, have a strictly limited value in themselves, multiplied they serve as a guide for future experimentation. The factors that govern the

number of fruits

which will set on an Apple tree are not fully known. We do know, however, on a priori grounds that Apple trees on the rich ground will generally set more fruit than trees on poor ground.

The size of the fruit, on the other hand, is dependent especially on the soil moisture conditions during the growing season.

The grower should, as far as possible, know the capacity of each of his trees, or at least of the trees in the different parts of his orchard, to produce sound fruit. In a sense there seems to be a relation between the optimum number of fruits produced and the quantity of food materials, including moisture at the disposal of the tree.

Possibly, however, the factor which is most liable to upset calculations is

the variable rainfall

from year to year, which, from the respective moisture retentive power of poor sandy hillside soils, and richer, more clayey flat soils (which characterise some of our orchard land), increases the disparity of results of Apple storage from the two localities.

Importance of Pruning.

The questions raised in the orchard situated on the hillside are: Should I prune in such a manner as to get a fairly large number of Apples, trusting that a favourable season will "fill them out"? or be less optimistic and prune for smaller crops, which, however, may be "over-grown" owing to a favourable season?

However, should this latter course be adopted, and the season be a favourable one, the fruit that is over-grown, but not necessarily over-size, should be sold as early as possible.

It is important to grasp the significance of what constitutes an over-grown Apple, which need not necessarily be over-size. The irrigated Apple orchardist is fortunate in this respect, for he can prune uniformly from year to year, for should there not be sufficient rainfall to "fill out," as it were, the crop he has designed for, he can readily supplement rainfall by applying irrigation water.

Young trees, especially on rich land, frequently produce poor keeping Apples. These trees by nature produce a small number of large Apples. A neglected tree frequently produces a large number of small Apples, which keep well. Why should neglect be so well rewarded?

The foregoing statement contains little matter of experimentally established fact, but contains much that is suggestive, and will we hope serve as an hypothesis for further investigation on this important phase of the subject.

The absence of really adequate knowledge of the effect of the foregoing factors makes an exact study of the effect of maturity of the Apple on its keeping quality difficult: this, too, is reflected in the contradictory results and observations which have been recorded on this subject.

In two experiments carried out by us last year, it was arranged that certain trees should be set aside from which two pickings were to be made.

In an experiment conducted at Drouin, the first lot were picked on 20th March, 1923, the second lot about three weeks later, during which time practically no rain fell. The former lot had a very much greater percentage of breakdown after six months' storage than the latter, although both lots were apparently quite uniform in respect to internal browning after four months' storage.

A second experiment with Stone Pippin Apples, grown at Somerville, and picked in the same manner as the Jonathans, showed a good deal more internal breakdown in the fruit picked on 15.4.24 than fruit picked on 30.4.24. In each case the amount of internal breakdown was closely associated with scald development. However, so far as our experiments have proceeded this season, no confirmation whatever of the results noted above have been obtained. We must first find out more about soil conditions, etc., in the orchard.

Correct Storage Temperatures.

Passing to cool storage conditions for practical purposes, the question of temperature is important, and we find that, while the matter is by no means conclusively established, evidence favours a storage temperature of 35 deg. F. rather than 32 deg. F. Particularly is this so in a normal season; and, further, Apples stored at 35 deg. F. have never in a storage period of six months, been observed to be worse affected with internal breakdown than Apples under 32 deg. F.

A third type of breakdown is observed in Rokewoods Apples. In this case the disease develops more slowly from the centre outwards, it is more truly an internal browning than a breakdown. However, when the disease is fully developed, the affected fruits are soft, but rather springy than mealy.

That this form of disease is also dependent on orchard condition is suggested by the fact that in the two seasons in which this variety has been stored, Rokewoods from Drouin have

ultimately developed internal browning badly, whereas fruit from Beechworth has, when stored under similar conditions remained quite sound.

We have found, too, that Rokewoods stored at 34 deg. F. are a great deal more free from internal browning than similar Apples stored at 32 deg. F. This relation to temperature is much more distinct with this third form of breakdown than it is with true "sleepiness."

Summary.

Summarising this paper, we find that the orchardist must study orchard conditions closely. Both by pruning in such a way in the notoriously "sleepy" orchard as to increase the number of individual Apples making demands on the sap supply, and by cultivation and drainage to make the moisture conditions in the soil from year to year as uniform as possible.

In the cool store itself, as far as our evidence goes at present, we recommend an average storage temperature of 34 deg. F. to 35 deg. F., rather than 32 deg. F.

Mr. Harrison's Investigations.

MR. J. C. HARRISON, who was associated with Mr. Adam in his important work of investigating Apple cold storage problems, sets out a summary of the results of his enquiries as follows:—

Soils.

At Red Hill, the general experience seemed to be that the darker soils grew fruit of the best keeping quality, such soils occurring on the flats and along the foot of the hills. The red soils appeared to produce fruit of the next best keeping quality, while the poorest fruit came from the white clayey loams, 4-6in. deep, occurring on the hillsides.

At Hastings, it was again noticed that the best results in keeping fruit were got from good soils.

At Somerville, that portion from which the loss had been heavy in a good orchard, is described as a wet patch, difficult to drain.

Drainage.

At Red Hill and Hastings no grower complained of "sleepy" fruit from that part of his orchard artificially drained, or at the most indicated that his losses had been light from it. At Somerville one grower had trouble with fruit from a partly drained area, while another got fruit of good keeping quality from a drained orchard.

Trees.

A general observation is recorded that big well grown Jonathan trees apparently bore good to heavy crops of good keeping quality. This would support the view that the best fruit came from good soils, which would grow the best trees. The age of the tree did not always give any indication of the keeping quality of its fruit: some young trees produced fruit of good keeping quality, and some

older trees fruit of poor keeping quality and vice versa. Usually, however, the older trees bore fruit of the best keeping quality.

Manuring.

At Red Hill growers who had manured and growers who had not manured their Jonathans suffered severe losses from sleepiness. The same applied to Hastings and Somerville.

Weeds.

A good vigorous growth of weeds indicates a soil in good heart and condition, and it is given as a general observation that growers who had an abundant growth of weeds throughout their orchards, or around their trees, if their orchards had been ploughed, were not amongst those who lost anything to speak of through sleepiness. This indicates further that the quality of the land apparently has an influence on the keeping quality of Jonathon Apples.

Cultivation.

The effect of cultivation is not definitely established. It was frequently remarked in different districts that fruit from uncultivated orchards had kept well. As regards the orchards inspected however, light, medium and heavy cultivations gave various results. Cultivation throughout the summer would, of course, conserve moisture in the soil.

Attention is drawn to the fact that the 1923 season was a normal one with a dry autumn, and that losses of Jonathans from sleepiness were not complained of, while during this last season considerable autumn rains fell, and the losses from sleepiness have in some cases been heavy.

Excessive moisture suggests itself as a cause immediately, which cultivation would conserve, and non-cultivation would help to get rid of, and as a possible contributing factor this cannot be neglected. The beneficial influence of artificial drainage is also again mentioned. The fact remains, however, that good results were got from some soils not artificially drained, particularly soil of good quality.

Nature of Crop and Fruit.

In each of the three districts, Red Hill, Hastings and Somerville, the general experience has been that heavy crops have always kept well. Instances occur, however, where light to medium crops have kept well in one instance, and poorly in another.

GOVERNMENT COOL STORES.

Victoria Dock Store Loses £27,275.

Figures recently submitted to Parliament are to the effect that the loss last year on the Government Cool Stores at Victoria Dock, Melbourne, amounted to £27,275.

* * *

The man with only one idea is generally too narrow-minded to make a success even of that one, and the man with no new ideas is in just as bad a plight.



Dried Fruit Department

REORGANISING THE DRIED FRUITS INDUSTRY.

Opinion from Westralia.

Heavy Crops Expected.

(The Editor, "Fruit World.")

Sir,—Your article, "What of the Re-organisation?" in the October issue of the "Fruit World" is very pregnant.

Three Bills have passed through the Federal Parliament, but as far as the grower is concerned, the situation is as obscure and disappointing as ever. The only thing one can be sure about is the eighth of a penny per lb. levy.

When in Melbourne last May, the scheme (as I understood it) put forward by the Federal Fruit Council, working in conjunction with the A.D.F.A., was that where the price realised did not reach the cost of production, the Federal Government should assist by a bounty up to £10 per ton, on condition that the dried fruit producing States passed legislation making it compulsory for each producer of dried fruits to export his quota, such quota to be fixed by a Board to be appointed. That would have been something tangible to offer to both the States and the dried fruit producer to induce them to come into the scheme.

As far as I can see, the present scheme offers very little. Here in Western Australia, at any rate, the returned soldier is so loaded up with his high capital values and accumulated interest that it is worse than useless advancing him more money at 6 per cent. on next year's crop. What of next year?

One may read into the Advances Act, that if the price realised does not reach the cost of production plus expenses for selling, etc., the loan will not have to be repaid. If that is so (and this is a point on which I should like to be sure about) why did the Federal Government not adopt the scheme referred to instead of going the round-about way they have, and leaving everything in such an uncertain state.

To get down to facts, we are producing at too high a cost to compete in the world's markets without some assistance, either in bounties or preferences (the Canadian Treaty is a step in the right direction), and the business has become such a struggle for an existence that everyone is glad

to sell his fruit at any price straight out himself, rather than hang on to an Association with all its long waiting, levies and charges.

The present scheme is apparently not compulsory, and if not, it is bound to fail.

Then our growers here are wondering who is going to actually control the new scheme? Is it to be the old A.D.F.A., with its merchant control?

The Western Australian proposal to the Prime Minister was as follows:—"That the Federal Government grant a bounty not to exceed £10 per ton on dried fruit exported, where the price received falls below cost of production; on condition that the dried fruit producing States enact legislation, fixing export, and making this compulsory."

As I have already stated, that would have been offering something both to the States and the grower, and have had the effect of making each export his fair share. The price for that sold at home could have been fixed on the basic principle.

One could write indefinitely on the dried fruits' question.

The vines are looking splendid here in the Swan Valley to date, and Currants show signs of producing a record crop. The point that worries the grower is, what to do with it after it is grown.

A. YEATES.

Millendon, W.A., 14/10/24.

DRIED FRUIT WEEK.

Success in Adelaide.

The retail grocers responded fairly well to the appeal of the Dried Fruit Traders' Association, although comparatively few entered for the competition, states the South Australian Storekeepers and Grocers Journal. Far more made window displays "not for competition." Among these was a fine show by the Adelaide Co-operative Society. The whole amount spent by the D.F.T.A. did not amount to more than £50, and the push given to dried fruit was greater than many advertisers achieve with ten times the expenditure. Reports from all quarters indicate increased sales, and there is no reason why a properly organised week (the organisation was very poor) could not be run with advantage twice a year.

A Vitamine Luncheon.

Entertaining and Instructive
Function Arranged by the A.D.F.A.

Foods with Health Qualities.

A NOVEL FUNCTION was arranged by the Australian Dried Fruits Association during October. This took the form of a "Vitamine" luncheon, held at Anzac House, Melbourne. Senator Crawford presided. Other noted guests were Mr. Prendergast (Premier of Victoria), Mr. Crockett M.L.C.

The luncheon consisted of soup, meat, fish, sweets, nuts and fruit, and alongside each item on the menu was placed its nutritive or food value. To the surprise of many the food value of meat and fish was very small as compared with Raisins.

The Premier in a speech congratulated the A.D.F.A. on its enterprise, and earnestly recommended the Association to review the matter of prices, in order that dried fruits could be sold more cheaply to bring them within reach of the masses of the people.

Mr. C. A. L. Morant, of Renmark (S.A.), who attended in the unavoidable absence of Mr. H. D. Howie, responded on behalf of the A.D.F.A.

Dr. Geo. E. Payne Philpots, dental surgeon, delivered an instructive address as follows:—

MR. Chairman and Gentlemen,—It gives me great pleasure to speak to this distinguished gathering about this great National Industry of ours.

The production of Fresh and Dried Fruits has a most vital relationship to the health of the nation that is not sufficiently recognised.

The public is enjoined to "eat more fruit" and to "every day in every way—eat raisins"—Why?

Could you have, do you want, a more compelling reason than that over 95 per cent of school children are suffering from dental decay, a disease that is wide-spread and yet one of the easiest to prevent.

One of the simplest of corrective methods is to end each meal with fruit of the fibrous sort, the sort that must be chewed and which promotes a cleansing flow of saliva. Fresh Apples or Raisins are excellent in this regard. To give you a personal example, my son Robin, now 8 years

of age has never used a tooth brush, yet his mouth has been kept perfectly clean by the method I have mentioned. Many parents have followed my advice with the same gratifying results, but it should be remembered that in placing our children in the hands of the dentist will not guarantee them good teeth. The reason is simple. When a dentist cleans out a decayed cavity and fills it, he does not remove the cause of decay.

The great prevalence of dental caries—or decaying teeth—is now recognised to be a food deficiency disease.

So long as the mass of the people continue to stuff themselves with our modern highly refined, chemically processed, denatured, devitalised foods, such as white bread, pastry, etc., which have been deprived of all their vitamins, just so long will our children and the nation suffer in health and lowered efficiency.

This must be regarded and is so regarded by thinking men and women as a great national calamity. Every endeavour should and must be used to educate the masses to eat only those foods that contain the essential vitamins.

I know only too well that it is the sincere wish of every parent to see his or her offspring grow up healthy and virile, and that the terrible amount of preventable disease that modern civilisation is cursed with be wiped out.

Do you realise that every year the little feet of over 13,000 children cease to patter round our homes, and before any of them have reached the age of ten years. Most of the deaths of these poor little children are from preventable disease. A tragedy? yes, but unfortunately only too true. Do you not think the time has arrived for all sections of the community to become thoroughly acquainted with the cause of all this preventable disease and each one to do his or her best to assist in its prevention.

It is our duty to fill this vast continent of ours with healthy people of the "Made in Australia" brand. This land must be populated if we expect to keep it ours and pass it on to posterity as a country worth while living in. We have conquered those diseases of the past due to imperfect sanitation, to-day we are confronted with those diseases which are caused through insanitary conditions in our mouths brought about by bad feeding and lack of sufficient fruit in our diet.

Gentlemen, you have all the "working tools" right before you, and I sincerely trust the press will do its part as on former occasions in telling the people what you have seen, heard, and tasted here to-day. My sincerest hopes are that it will result in the adoption of menus of this type in every home and eating house in Australia. Every citizen should consume at least 10 lbs. of fresh, or its equivalent, in dried fruits per week.

This would mean that each person in Australia would consume something like 520 lbs. of fruit per annum.

We would have needed in 1922 and 1923, 1,307,726 tons of fruit. For this season the total production was but 447,424 tons.

You must agree Gentlemen, that the people of Australia do not as yet consume anywhere near that quantity of fruit which they could do with incalculable benefits to their health.

It has long been my humble opinion that education in fruit and food values is the only way to get the market which the excellence of our dried fruits richly merits.

If this luncheon could be repeated in every city and large country centre throughout the Commonwealth, it would not be long before our dried fruit crop would be consumed. The results would be immediate improvement in the health of the people, relief to the producer, and the taxpayer as the latter would possibly be relieved of the necessity of finding a subsidy for the industry.

DRIED FRUIT STATISTICS.

Illuminating Figures.

The Commonwealth Statistician has compiled the following figures from the latest available official sources, relating to the dried fruits industry.

Annual Production of Raisins.

	Tons.
U.S.A.	209,800
Spain	59,350
Turkey (Smyrna)	36,000
Australia	18,650
Greece	12,000
South Africa	7,000

Currants.

	Tons.
Greece	105,000
Australia	10,500

New Zealand takes the lead as a consumer of Raisins and Currants per head of population, the figures being as follows:—

	Raisins.	Currants.
	lbs.	lbs.
New Zealand	4.40	1.20
Australia	3.10	1.65
United Kingdom . . .	1.85	2.77
Canada	3.59	0.60
U.S.A.	2.96	0.34

The joint totals are—New Zealand, 5.60 lbs.; Australia, 4.75; U.K., 4.62; Canada, 4.19; U.S.A., 3.30.

In regard to export a comparison is given hereunder:—

	Tons.
Greece—Raisins	10,000
Greece—Currants	87,400
U.S.A.—Raisins	42,200
Turkey—Raisins	27,500
Spain—Raisins	26,400
Australia—Raisins	11,700
Australia—Currants	7,350

Considerable quantities of dried Grapes are annually imported into the United Kingdom, which is the leading market for exporting countries. Other Continental countries import largely,

and Canada and U.S.A. rank next in importance.

The principal importing countries of Raisins and Currants are:—

	Tons.
United Kingdom—Raisins . .	58,500
United Kingdom—Currants . .	52,150
Canada—Raisins	17,300
Canada—Currants	2,500
U.S.A.—Raisins	7,600
U.S.A.—Currants	9,550
New Zealand—Raisins	3,100
New Zealand—Currants	700

Australia's 1923-24 export of Raisins and Currants shows an increase of 4,002 tons on the previous year, the lowest export being to U.S.A., which only bought 2 cwt. of Raisins.

So, apart from the question of export, there can be no denying the fact that Australia herself should consume more health-giving Raisins.

DRIED FRUIT GROWERS.

Mass Meeting at Mildura.

Opposition to A.D.F.A.

Compulsory Pool Desired.

BETWEEN three and four hundred growers attended a mass meeting, convened by the special sub-committee in the Mildura Town Hall on October 21st, states "Sunraysia Daily." The Mayor (Cr. A. J. Jenkins) occupied the chair.

Major Goucher outlined the action taken since the mass meeting on August 23rd.

Mr. O. R. Linden moved—

That this mass meeting of growers from Mildura, Irymple and Merbein expresses its utter lack of confidence in the present Board of Management of the A.D.F.A., and demand the incoming Federal Council to reconstitute the Board.

The motion was received with applause. Mr. Linden continuing, in a vigorous speech, criticised the Board of the A.D.F.A. for not taking the growers into its confidence. The Board wanted to bring the grower to its will instead of accepting the will of the grower. If the Dried Fruits Export Control Bill—a week-kneed emasculated measure—was all the Board could get from the Government, it had failed. Growers demanded the reorganisation of the A.D.F.A., not its liquidation.

Why did not the Board admit its mistake in dropping the price of fruit by 2d. per lb. last year? If the Board had come to the growers and asked them to stand behind a scheme acceptable to the growers, meetings like the present one would not have been held.

Mr. J. Hudson seconded the motion. He believed the Board had forfeited the confidence of the growers. Thanks were due to Mr. Linden for his work in connection with the agitation for a compulsory pool.

Replying to a question, Mr. Linden said that the Compulsory Pool Bill would doubtless have clauses protect-

ing growers and preventing any agents from making any capital from the growers by purchasing their crops before the pool was created, for a term of three or five years.

Mr. E. T. Henderson opposed the motion. He deprecated any action that was likely to injure an organisation that had done good work for them in the past. The A.D.F.A. had served the growers very well. No one was satisfied with the work done by the London agents, but the A.D.F.A. hoped to remedy that phase. He hoped the motion would not be carried, as he wished to see the breach healed and not widened.

Mr. A. Lochhead supported Mr. Henderson. The A.D.F.A. was like a horse and cart temporarily stuck in the mud. By united efforts the wheels of the cart could be got out of the rut. The A.D.F.A. believed in a compulsory pool, but had put forward an alternative proposal for the licensing and inspection of packing sheds, which they thought would serve the same ends without antagonising those against compulsion.

Major Radclyffe supported the motion. Desperate diseases needed desperate remedies. The biased article in "Sunraysia Daily" was not heavy artillery—it was really like a little mustard gas. A new organisation would help the industry, not retard it. Growers' interests had not been attended to by the A.D.F.A. Mr. L. G. de Garis had broken with the A.D.F.A., but in the speaker's opinion he (de Garis) was needed back.

Mr. G. W. Hardie, President of the Merbein Fruitgrowers' Association, supported the motion. Nothing less than a compulsory pool would satisfy the growers, although some might be against it on principle.

The motion was put to the meeting and carried by a large majority. Upwards of 300 hands were held up in favor, and about 40 or 50 against.

Resignations Demanded.

Mr. Linden moved the following motion:—

"That this mass meeting of growers from Mildura, Irymple and Merbein expresses its utter lack of confidence in the local district council, and calls upon the members constituting that council to resign."

Mr. McQuie seconded the motion, which was carried by about the same majority as had been in favour of the first resolution.

Mr. McQuie then moved:—

"That this mass meeting of growers requests the executives of the various local groups to summon immediate meetings of their groups in order to receive their resignations, and elect fresh representatives in their places."

Seconded by Mr. J. Hudson and carried. Practically the same number voted for and against in this case also.

Compulsory Pool Desired.

Major Goucher submitted the following motion, which was seconded by Mr. Potts and carried without dissent:—

"That this mass meeting endorse the motion previously carried by the growers in favour of the compulsory pool, and recommend the Federal Council to push the matter forward with all expedition."

It was decided, on the motion of Mr. A. Lumm, seconded by Mr. F. Russell:—

"That in order to meet the expenses already incurred by the special sub-committee in calling meetings and guaranteeing a special train, and also those expenses likely to be incurred, a voluntary levy be made upon growers to defray same; any surplus to be donated to the Mildura Hospital."

Mr. Linden said he thought the expenses would be about £15, as nearly as could be ascertained.

Messrs. H. W. Sutton (Merbein), E. F. Power and C. Rusting (Irymple) volunteered to comprise a sub-committee to collect the levy and pay ex-

Harrison, Ramsay Pty. Ltd., Melbourne, state that while the first of the new season's arrivals of Smyrna Sultanas are inferior to Australian Sultanas, they showed good colour, which, unfortunately, with the Australian fruit is the reverse. Samples of Australian Sultanas held by various agents were inspected, and, generally speaking, the quality was extremely poor, and the grading, if possible, worse than ever.

The custom in London is to draw what is known as three large stock samples, from each line of fruit, and the report states that in nearly every instance the three samples varied so considerably that it was hard to believe they belonged to the one line. There is no doubt that unless drastic improvements take place in the grading of Australian dried fruits, it will always be a severe handicap on the London market. Mr. Caro, the representative of the A.D.F.A., has reported fully on this matter. Over 100 samples of Sultanas were inspected, and in not one instance was the grading properly carried out.

The obvious suggestion is that if there were more adequate supervision in the various dried fruit packing sheds, better prices would be received for the bulk of the Australian exports.

DORADILLO GRAPES.

Government Assistance.

The Prime Minister, Mr. Bruce, has announced that by granting a bounty to growers of Doradillo Grapes, the total amount involved would be £58,200. The Commonwealth, in an effort to get the States to act, voluntarily offered to pay half this amount, provided the States contributed £ for £ on the basis of their production. Such contributions would have been:—New South Wales, £11,000; Victoria, £8,800; South Australia, £19,300; Commonwealth, £29,100. In view of the urgency and importance of the matter, and in order to provide some measure of relief before it is too late, the Commonwealth Government has decided to make available at once its proportion of the total amount (viz., £29,100), and leave it to the States to take whatever action they desire to discharge their obligation to the growers.

Mr. Gunn (Premier of South Australia) said that realising the seriousness of the position, the State Government had reluctantly offered to contribute one-third of the bounty on Doradillos instead of 50 per cent. as requested by the Commonwealth Government. The State Government felt that the Commonwealth should pay the whole of the bounty in view of the large excise revenue the latter derived.

QUALITY DEHYDRATORS

J. H. MORTON, A.M.I.M.E.
Consulting Industrial Engineer

Bank of N.S.W., SYDNEY, and
369 POST OFFICE PLACE, MELBOURNE

Inventor-Designer
WORLD RENOWNED

"Morton Efficiency" Dehydrator

(By Royal Letters Patent)
(Adopted after elaborate Official Tests
by H.M. Imperial Govt.)

Consultations and Reports on EVERY
DESCRIPTION OF DRYING APPLIANCE.

Write NOW!

penses from same, and hand any balance to the Hospital.

At the instance of Mr. Linden, a hearty vote of thanks was carried to the Mayor for presiding.

Compulsory Dried Fruit Pool.

Mr. G. A. Campbell, Mildura, Vic., writes:—

"I believe that a 'Government Compulsory Dried Fruit Pool' is necessary. It is one way of making the outsiders fall into line with the A.D.F.A. growers, and stand his (the outsiders') share of export proportion."

DRIED FRUITS IN ENGLAND.

Dried fruit handlers in London continue to complain of the quality of Australian shipments of dried vine fruits. Writing under date, September 16th, the London office of Messrs.

Canning News and Notes

SHEPPARTON.

There is a good and heavy setting of all kinds of fruit around Shepparton this season, states Mr. T. H. Peart, Manager of the Shepparton Fruit Preserving Co. Apricots have set very well and considering the crop last season, growers are fortunate to have another good crop following, for it is something unusual to have two good crops in succession of this variety of fruit, but shothole is showing up and growers will have to keep a close watch on it with the sprays.

We got rather a severe hail storm on October 6th, fortunately a good number of the orchards missed most of it, but those in the track of the storm will have most of their Apricots marked which makes them fit for Pulp or Jam only.

Peaches are looking well although the early market varieties are not heavy they are carrying nice crops. Curled leaf has been bad this season owing to the continued wet and cold weather, all the same the factory will get as many or more than last season, which was a record.

Pears have set well and there will be a big increase in this line over previous years, although in some instances they got damaged with the hail storm.

Taking everything into consideration there is going to be a

much larger crop than in previous years. Some of the returned soldiers who went on to unimproved blocks will be getting their first crop to speak of.

The Shepparton factory has had a wonderful sale of the last pack which is all sold and delivered with the exception of a few dozen Apricots, and these too will be sold out well before the new crop is ready.

We are putting a new 2300H.P. boiler in, and one complete canning line to the seven lines now in the factory, which will make a big difference to our output.

We installed a new Jam line some months ago which is giving every satisfaction, and with the thirteen varieties of Jam on the market, we are doing good business which is a good thing for the orchardists for it enables us to dispose of fruit which is not suitable for canning.

We are installing our own Electric power, which formerly we received from the Town supply, and to enable us to do this, are putting in one 50 horse power Crude Oil Engine for the coming season.

AMERICAN ORGANISER IN QUEENSLAND.

During an interview with a representative of the "Brisbane Courier," Mr. M. G. Patterson (a Queenslander who occupies the position of divisional sales manager for the California Pack-

ing Corporation of San Francisco) stated that the canning industry in California was one of the largest and most substantial industries in the State. Last year the pack of fruit and vegetables totalled over 19,000,000 cases, and the 1922 pack comprised over 22,000,000 cases. The number of cases of clingstone Peaches last year was 6,500,000, and the 1922 figures exceeded this total. 1,500,000 cases each of Asparagus and Apricots were also packed.

Mr. Patterson said that one of the principal reasons for the excellent name of the corporation throughout the world was due to the canneries being established right in the heart of the orchards, it being the aim of the company to establish a canning factory in the district best suited for the variety of fruit which would be canned. In many cases the fruit was packed and the cans hermetically sealed within an hour after it had left the tree.

Another big factor is the attractive labels, which, of course, must be supported by the contents of the can, and to this is added extensive advertising. Mr. Patterson had noticed a much needed improvement in the style and design of the labels used, but more care should be exercised in Australia in grading fruits.

"It seems to me," concluded Mr. Patterson, "that Queensland canners should be able to secure good results if they put canned Mangoes and Papaws on the market, as these products are practically unknown in the United States."

Under the 1923-4 Bounty Scheme the following is a summary of the fruits canned:—

Fruit.	Tons Accepted.
Apricots	2,528
Cling Peaches	10,811
Pears	6,020
Pineapples	3,826
Slip Peaches	1,733
Total	24,918

Maffra (Vic.) Sugar Factory.—According to the budget figures submitted to the Victorian Parliament by the Premier and Treasurer (Mr. Prendergast), the Maffra sugar factory has become a payable concern. Last year a profit of nearly £20,000 was earned, evidently due to the results of the Queensland arrangements under which £27 per ton is paid by the refinery to the mills.

CANNING ITEMS FROM U.S.A.

The following interesting items are extracted from the August number of "Better Fruit":—

One thousand persons are working in the fruit canneries and fields of Whatcom County, Washington, U.S.A. It is anticipated that this

year's pack will exceed that of 1923, although dry weather and late frost did considerable damage. This adverse condition especially affected the Cherry, berry and Apple harvests which it is considered will be short. The Bean crop, however, is expected to be quite as heavy as that of 1923. One packer estimates his Strawberry pack as 40 per cent. of normal; his Cherry pack as 60 per cent., and the Raspberry pack as only 15 per cent. short of a normal season.

Peach canning operations commenced during July, at the Yuba City plant of the California Packing Co. The season's pack is expected to exceed that of the previous year's pack of 200,000 cases, and the season will probably last from 40 to 50 days, with an average of about 500 employees on the work.

The Puyallup and Sumner Fruit Growers' Association recently purchased the North Puyallup cannery, which consists of a modern equipped canning plant in buildings formerly owned jointly by the Chicago-Milwaukee and the O.-W. railroads. The plant is being remodelled by the employees of the Association preparatory to handling the Blackberry crop. It is anticipated that 100,000 cases of this fruit will be packed in the new plant.

The Clackamas County Canning Co., of Oregon, U.S.A., with its two plants running to capacity, has been busily engaged, 100 workers being employed. The daily production at the Carver plant was 10 tons, and at the Canby plant, about 5 tons. Sixty per cent. of the shareholders are fruitgrowers. Heavy crops of Raspberries, Loganberries and Cherries have been processed.

The Oregon Packing Co. are operating a plant for the curing and processing of Cucumbers at Woodburn, Oregon, U.S.A. The cost of the plant is estimated at between £2,000 and £3,000, and it will handle the crop from 150 acres within a radius of 15 miles.

Approximately 8,000 tons (or one-half of the Bartlett Pear tonnage) of the Yakima Valley crop is reported to have been contracted already by the canners. Most of the large offerings have been sold at £12 a ton. Co-operative associations are reported to have sold large quantities to canners at £13.

Plans have been drawn by the Washington Dehydrate Food Co. for a plant to be constructed at Yakima which will cost about £18,400, including the machinery. The building will contain 20 kilns, and will be of fire-proof construction.



Organising Citrus Growers

Wonderful Results in California.

Harmony in the Trade.

Eminent Canadian's Testimony.

The professor of marketing in the Agricultural College of Ontario in Canada, Professor R. D. Colquette, made a study recently of the co-operative system of marketing as adopted by the Californian fruitgrowers. He was asked for his opinions on the system, and the following extract from a letter received by a representative of the "Producers' Review" (Queensland), gives his opinions. After saying that at any cross-road's store in Ontario where one cannot buy an Ontario Apple one can easily buy a Californian Orange, Professor Colquette says:—

"Wideawake growers out in California see to it that they are displayed. Last year the California Fruit growers' Exchange, oldest and largest of California co-operatives, shipped 17,857,417 boxes of Oranges, Lemons, and Grapefruit to points outside California; increased its proportion of all citrus fruit grown in the State from 68.7 to 75.8 per cent.; returned £11,045,000 to its members; lost through failure of customers only £1400, and did all this business at a cost of 1.51 per cent. of the delivered value, or, including advertising, 2.49 per cent. In the last twenty years it has returned to its members £110,000,000 from the sale of their products.

"It is a federation of 208 local associations, with 11,000 members. The locals each have their own packing houses and are fully responsible, financially and otherwise, for their own local activities. They are grouped into 21 district exchanges. Each district exchange has one director on the board of the California Fruitgrowers' Exchange, which owns the brand 'Sunkist' and acts as the central selling agency for all the fruit. It has business connections with 3,500 wholesalers, who serve 400,000 retailers.

"Twenty-five years ago the Orange growers were faced with what they thought was over-production. Since then production has quadrupled, and the crop is still consumed. Judicious advertising and merchandising methods have kept demand equal to or ahead of supply. A levy of 2d a box on Oranges and 3d a box on Lemons pays for it all. Advertising and dealers' service work are directed chiefly to the retailer and consumer.

"Last year an arrangement was made with the railways by which, through the use of larger cars and quantity shipments, a lower freight rate was secured on Oranges. The reduction will effect a saving of £600,000 a year to Orange shippers. This works out at 7d a box. The total cost of the organisation's services, exclusive of advertising, is 3d per box, or less than half the amount of the reduction."

These opinions are not those of a mere "booster." Professor Colquette is a very eminent Canadian, concerned with his University task of improving the systems of marketing, and he gives us his opinions, gathered after careful investigation. What he says about the Californian Orange being obtainable at the cross-road's store in Ontario can be confirmed by going no further than Brisbane. There in the high-class shops you can buy Californian Oranges. Because of the duty the price is high, sometimes as high as sixpence each, but the fact that Californian Oranges are sold in an Orange-growing country like Queensland is an indication of how wonderfully successful the organisation is.

The foregoing has been accomplished without Government compulsion.

Success has followed the Californian system because it is sane, wholesome and businesslike. No system lacking these essentials will ever succeed.

The growers' co-operative organisation works in harmony with wholesale and retail distributors, and is ever seeking to expand, not to restrict the channels of trade.

Professor Colquette's remarks make a refreshing rejoinder to a statement recently published in Victoria that the Californian organisation finds its "powers steadily dwindling." Instead of its powers being reduced the proportion of citrus handled by the organisation increased from 68.7 to 75.8 per cent, and returned £11,045,000 in hard cash to growers.

SOUTH AUSTRALIAN CITRUS EXPORT.

Small, but Satisfactory.

Owing to the abnormally short crop, export this season amounted to only 1,909 cases. This parcel was divided into two shipments; the first of 1,009 cases leaving on June 30th ex "Esperance Bay," and the second of 900 leaving on 21st July ex "Moreton Bay" (writes Mr. J. A. Parkes, Secretary, Murray Citrus Growers' Co-operative Association (Australia) Ltd.).

The first consignment was sold in London, and the gross realisation was 24/11 per case (11-3rd bushel). The gross average for the second shipment was 24/6½ per case. There was very little variation in the prices obtained for each district, the highest in the first consignment being £1/5/3, and the lowest £1/4/6½. In the second shipment the highest was £1/5/1½, and the lowest £1/3/10½.

Owing to the strike at Covent Garden Market, the "Moreton Bay" parcel was landed at Hull, and the fruit from the Murray View and Renmark districts, comprising 235 cases, was sold there. The balance from Waiakerie and Berri districts, comprising 665 cases, was forwarded to Liverpool and sold at that port.

In view of the fact that up to the present very little citrus fruit from Australia has been sold in the Liverpool market, it will be interesting to note the prices realised. The Waikerie parcel, allowing for railage to Liverpool, averaged 25/1½ per case; Berri, also allowing for railage, 23/3½. The parcel sold at Hull showed 25/4½ for Murray View, and 23/10½ for Renmark.

In addition to the above total shipped by the Association, and sold through the accredited agents, a parcel of 778 cases was shipped from Waikerie and Berri districts through McClure, Valantine & Co., this consignment had the approval of the Association, given at the special request of the Waikerie and Berri growers, who had received an offer of 12/- per case on rails with a guarantee of no debit.

This parcel reached London at the same time as the first Association shipment ex "Esperance Bay," and was sold by Isaacs & Sons Ltd., at the Monument Sale Rooms, the highest price realised being 23/-, and the lowest 17/- except for slack cases. The gross average realisation for the whole shipment was 20/1. The Association consignment sold at the same time, realised up to 30/- per case, with nothing lower than 25/- except for slacks, the gross realisation being 24/11 per case.

The outstanding feature of our export has been the excellent condition in which the fruit arrived, no waste having taken place.

Regarding the first shipment, the South Australian London Trade Commissioner (Mr. R. M. K. Lewis), writing under date 3rd September, says:

"On the whole, the 'Esperance Bay' was a very nice parcel of fruit, and the landed condition was very satisfactory. I purchased a case myself of the Berri parcel, and have a portion remaining still in excellent condition, with a life still in the Oranges for some weeks, and it is now just on four weeks since the 'Esperance Bay' arrived."

As you are doubtless aware, our Association, in view of previous experience, does not advocate late shipments from our districts, as the keeping quality, after the end of July is doubtful, when the journey to London is considered.

NEW SOUTH WALES.

The Manager of the N.S.W. Central Citrus Association (Major H. R. Hallard) reports under date October 23rd:—

Export to London.—Shipments this season were light, owing to a generally light crop. Per s.s. "Moreton Bay" in July were forwarded only 50 cases Washington Navels, which did not arrive in the best condition, and were much delayed and much handled through the shipping strike in London. They realised from 14/- to 24/- per case.

During August 338 cases were shipped by the "Jervis Bay": the varieties comprised Joppas, White Silettas and Parramattas. These arrived in excellent order. Averages for each of these varieties came to 23/- per case, which was considered quite satisfactory.

These varieties were experimented with as in a big season, they are grown extensively in N.S.W., and an export market would be wonderfully useful. Some were sent last year, arriving in a very good condition, so that it would seem the experiment is so far a success, and shipments next year will probably be largely increased.

Per "Largs Bay" in September, we shipped 1,300 cases, mostly Valencias, and some Silettas and Parramattas. Cable advices indicate realisation from 22/- to 29/-. In total, therefore, N.S.W. shipped about 1,700 bushel and one-third cases to London.

The experience gained last year and this have fitted our packing houses to deal with large quantities for export, when the necessity for heavy exportations arrives.

Further co-operative packing house companies were formed this season at Kurrajong and Galston, and it is anticipated that next season, besides increased membership of the existing houses, that probably four or five more co-operative companies will be formed.

As an instance of the continuous growth of the movement, it is interesting to note that the Gosford District Citrus Packing House Ltd. packed 7,000 cases with 27 members the first year, 1921; in 1922, 12,000 cases; 1923, 40,000 cases, and this year they will

exceed 80,000 cases,

with a membership of 170 growers. Their share register had to be closed in May this year, as it was realised that their present building and equipment could not handle satisfactorily more than 80,000 cases. They are now preparing plans for an enlarged building and plant for next year, which will enable them to pack when necessary up to 200,000 cases.

This is just one country district, and shows what can be done by efficient management and a loyal and progressive body of growers.

CITRUS PACKING SUGGESTIONS.

In regard to the packing of Oranges in the "standard Australian case" (dump) (writes Mr. Basil Krone, Fruit Packing Instructor to the Victorian Department of Agriculture). I am of opinion that we might still further improve the packing of this fruit by adopting a slight modification of the diagonal system as now used in most of our packing sheds, viz.—By placing each Orange on its cheek instead of on the flat as hitherto, and, of course, still adhering to the "dia-

gonal" system in its true sense, that is, "That no two fruits should rest directly on top of each other in any direction," and also that the 3-2, 2-2, and 2-1 packs only be used, and eliminating the 3-3 and 4-3 packs that sometimes appear on the market.

My reason for making the above suggestions are that although Victorian citrus fruits arriving on Melbourne markets are very evenly and well graded, the packs in many instances appear as if they had not been brought high enough before nailing down at the packing shed, because when opened to buyers there is often quite an inch showing below the top of the case, but an inspection at the packing shed will show that it was impossible to pack higher.

The cause of this is not only shrinkage, but all citrus fruits, specimens of which may be chosen of same diameter, differ considerably, and when packed on the flat cause a slight pocket variation in each layer. This is hardly noticeable at first, nevertheless the variation is sufficient to create a greater amount of "give" when several layers of fruit (say, six or seven) have to be placed in a box.

This, of course, is very noticeable with the packing of hard fruits, such as Apples; even America, with her shallower boxes, which contain less layers of Apples, has found this out long ago, and strongly adheres to only cheek packing for Apples; therefore as our Australian timber and the size of our cases are entirely different from those of America, I believe it would be worth our growers while to give this modification a trial to see if we cannot still further improve the "get up" of our fruit.

Another reason for my suggestion that the 3-3 and 4-3 packs be not used, but replaced by 3-2 packs, is, because, when the former are used, a lot of empty spaces occur when the sides of the cases are removed for buyers' inspection.

In regard to grading generally.—Improvements have been brought about, due to machine grading. Grades are becoming standardised, and as machine grading is adopted by practically every citrus packing shed in Victoria.

Already a small trial consignment of Oranges has been forwarded to Melbourne in conformity with the grades above suggested. The results were satisfactory, and I would suggest each citrus district in the State make a trial in similar manner.

With the object of maintaining a high standard in regard to grading and packing all fruits, a Wall Sheet is in course of preparation by the Department of Agriculture, which will be distributed to each packing shed and cool store in the State, the idea being to enable the packer at a glance to determine which pack to adopt, and which will bring the fruit to the correct height in the case.

A NEW ZEALAND NAVEL ORANGE AND ITS ORIGIN.

A New Variety Said to Excel Washington Navel.

Some 12 or 13 years ago (writes Mr. H. R. Wright, of Avondale, in the "New Zealand Fruitgrower and Apiarist"), Mr. Best, of Avondale, while paying a visit to our nurseries, produced a few Oranges that he brought over with him. He requested the writer to sample them, at the same time remarking that most of them were seedless. Upon sampling, I was most impressed by the deep coloured and delicate flesh of superior quality to any other variety previously sampled. I decided to investigate further and see the tree. Inspection proved it to be a seedling, and on making inquiries from Mr. Best as to how it originated, he informed me that as far as he could remember, they had planted out some Lemons worked on sweet Orange seedlings. One died and the stock shot up from below the bud. To-day this seedling is about 24 feet high, with the same measurement through the head, while it measures 45 inches in circumference around the trunk, six inches above the ground.

The parent tree is now a very heavy yielder, and many of the fruits attain a large size, frequently measuring 12 inches. This variety is of the Navel type, and the fruits are usually seedless, which is brought about through the malformation of the sexual organs of the blossoms, which fact is applicable to all Navel varieties.

In honour of the raiser, we named it, "Best's Seedless Navel."

This Orange has been frequently sampled in conjunction with all the leading varieties, including the world-famed "Washington Navel," both local grown and imported, and in every instance it is pronounced the best, which speaks much for New Zealand's first and only Navel so far raised. "Best's Seedless" is given to throwing different types of fruit. In some, the Navel is hardly noticeable, while in others it is most marked, and their shapes vary from flat to round, and a few incline to oval.

This variety will lend itself to bud selection to fix a type, as was the case in Washington Navel, which is a selection from the old original Bahia. The writer is now working on a very fine strain that promises to be an early bearer, large size, good shape, showing very small navel mark, while the tree itself differs altogether from the parent, being of dwarf, compact growth, with short thorns. If successful in fixing this strain, it will leave little to be desired.

An interesting article on Lemons and Beauty appears on page 525 of this issue.

Queensland.

Items of Interest.

By our Special Correspondent.

THE WEATHER CONDITIONS up to the present have been ideal. The rainfall in all fruit centres was exceptionally good, and Queensland generally is showing vigorous orchards. In fact, farmers throughout the country are in for an excellent season. Bountiful crops will be harvested, Bananas, citrus and deciduous fruits look better now than they have done for many years.

Tomato Grading Enforced.

Queensland can claim to be one of the first countries in the world where grade standards are fixed by law for Tomatoes. Growers in Queensland have agreed to grade and pack according to the regulations. [Details available on request.—Ed. "F.W."]

Fiji Bananas.

Should Importation be Prohibited?

Recently a shipment of Bananas from Fiji arrived in Brisbane. The shipper who was travelling by the same steamer was very anxious to dispose of a quantity of the fruit in Brisbane owing to some ripening during the voyage. Needless to say landing was prohibited. And growers here applaud the action of Mr. A. H. Benson (The Director of Fruit Culture), who is Chief Quarantine Officer for Queensland, for preventing this fruit from landing.

Mr. Collard (Horticulturist), who has just recently returned from Fiji where he has been investigating the cause of Bunchy-Top, states that a far worse disease (Sigatoka) is very prevalent in Fiji islands, and is doing extensive damage to the crops. The knowledge of this disease raises the point as to whether or not a ban should be put on the importation of Bananas into Australia.

Leading Banana growers are of the firm opinion that their industry should be safeguarded similar to the citrus and other industries. It is well-known that most of the pests and diseases in Australia have been imported, and should the "Sigatoka" disease get a hold in Australia a very valuable industry would be in danger of extinction.

The disease is internal and external examination does not reveal anything wrong with the fruit, therefore it is not possible to thoroughly inspect a large shipment of Bananas.

At present an up-to-date laboratory is being built at Tweed-heads at considerable expense, to investigate Bunchy-Top disease, through which disease thousands of pounds have been lost by Banana farmers in Northern New South Wales.

It would be distressing if after spending public money to find out the

cause and cure of one disease, to discover through lack of control the introduction of a worse scourge (Sigatoka).

Banana growers have great faith in Professor E. J. Goddard, who is a veritable live wire and is working energetically in the interests of the whole fruit industry.

Stanthorpe.

Large Crops Practically Assured.

Stanthorpe at the time of writing presents a wonderful sight. Apples, Pears, Peaches, Plums and Nectarines, give promise of exceedingly heavy crops. In previous seasons drought, hail and frost took their toll of the fruit, but the season now approaching has been free from the above mentioned conditions.

The burning question among growers is, "what shall we do with our fruit?" It is realised that if fruit-fly or some other pest does not thin the crops, markets other than Brisbane will have to be found, wider distribution in Queensland is needed, and with the extension of the North Coast railways, truck loads of deciduous fruits could be railed to Cairns, Townsville, Charters-Towers, Cloncurry, Longreach, Hughenden, Bowen and other centres that have hitherto been very poorly supplied with Stanthorpe fruits during January February and March.

Committee of Direction.

Compliments from Pineapple Growers.

Delegates from every Pineapple centre in Queensland were present at the Turbot-street rooms on October 15th. The principal business was the managers report on the disposal of the winter crop of Pines. The secretary was instructed to give publicity to the following unanimous resolution.

"That in view of the fact that the Committee of Direction had to market a record crop of Pineapples during the winter, we, the Pineapple Sectional Group Committee, desire to place on record our appreciation of the capable manner in which the crop was handled by them."

The regulating of supplies to Melbourne, Sydney, and Adelaide was made during the winter crop. This experiment has been very successful, and the sectional committee passed a further motion as follows:—

"That this Sectional Committee expresses entire satisfaction with the principal of allocation of Pineapples to the local and Southern markets and canneries as carried out by the Committee of Direction during the winter."

There is no doubt that growers of Pines have had an exceedingly profitable season, prices have been and are now very good, and growers find no reason to complain of the actions of the marketing committee in connection with Pineapples.

Extensive Banana Planting.

North Coast Area.

Thousands of acres of scrub land are being prepared for Banana planting. In the Gympie district alone 1,500 acres are now being planted. Several hundred acres are also being planted in the Johnston River district.

Many growers fear over-production, while others who have been carefully watching the industry, are of the opinion that Bananas are under consumed, and wider distribution and consumption is needed for this product. If Banana growers would only play the game and send only mature eatable fruit to market, eliminating inferior rubbish, Bananas would be freely eaten and there would be no fear of over production of this delicious food fruit.

Wamuran.

Protection for Canned Pines.

At the monthly meeting of the Wamuran District Local Producers' Association, it was decided to call the attention of Mr. Corser M.H.R. to the fact that,—

"Whereas there was preferential duty with Canada, and a £14 duty upon dried fruit, there was no mention made of protection for canned Pineapples."

[The proposed Treaty between Canada and Australia has not yet been ratified. The duty on dried fruit (Raisins etc.) is 3d per lb. or £28/- per ton.—Editor, "F.W."]

It was also decided that as Wamuran was purely a fruit district and the products were being marketed by the Committee of Direction of Fruit Marketing, no action need be taken by them regarding the remodelling of the Council of Agriculture on the commodity basis.

Banana Growers Oppose Committee of Direction.

At the monthly meeting of the Cooran Fruitgrowers Co-operative Society, exception was taken to the Committee of Direction allowing agents in Melbourne to debit growers for losses through ("Squirter" disease), while from Sydney no complaints had been received.

It was decided that Gympie, Mary Valley, and North Coast districts be visited by delegations to solicit support for the abolition of the limitation of agents in the Southern Markets, and that a petition be forwarded to the Chairman of the Sectional Group Committee, requesting that a special meeting be convened to discuss the matter.

Messrs. Bourke and Graham were appointed delegates to visit the various centres.

The Fruit Marketing Instructor (Mr. W. Rowlands), and the Departmental Cinematographer (Mr. A. W. Burne), have been spending a fortnight in Cooran. The former is giving

grading and packing Bananas demonstrations, whilst Mr. Burne is securing a comprehensive moving picture of the Banana Industry, showing the falling of scrub, planting, grading, shipping etc. It is understood that the picture when finished will be shown in the Southern Capitals and should be interesting to the public.

"Crown Gall" and "Hairy Root."

Trees Condemned at Stanthorpe.

The Senior Inspector (Mr. T. W. Lowry), has during the last two months condemned several consignments of young fruit trees from New South Wales and Victoria which have been found upon examination to be affected with a root disease called "Crown Gall" and "Hairy Root." Samples were forwarded to Mr. H. Tryon (plant pathologist), who stated that both diseases were present. It has been known for some years that these diseases were prevalent in New South Wales, but up to the present they were never expected to be found in trees from Victoria.

Mr. Tryon who has been in the Stanthorpe area during the last fortnight is of the opinion that 25 per cent of the trees planted in the Stanthorpe district are affected with the diseases mentioned. Troubles which have been put down to unsuitable soils, have now been traced to "Crown Gall" and "Hairy Root." A thorough examination of the area is proceeding. It is hoped that when a report is furnished the percentage affected will be much below that given by Mr. Tryon.

Canned Grapes from South Australia.

Several large shops in Brisbane have large window displays of canned South Australian Grapes. One store has sold 1,000 cases in five weeks, and according to one storeman he is kept busy opening cases, so great is the rush to secure them. It was a happy thought on the part of those responsible, to land this fruit in Brisbane at this period of the year between crops.

A little reciprocity on the part of South Australians would be appreciated.

Canned Pineapples from Queensland are delicious. Try them! (ARE YOU LISTENING, SOUTH AUSTRALIA?)

ORANGE BUG.

It has been brought to the notice of the Department of Agriculture that the Bronzy Orange Sucking Bug is showing up in large numbers generally throughout the North Coast Fruit District as it did this time last year. As this insect is proclaimed a disease under the Diseases in Plants Act, every citrus grower in whose orchard this disease is present must take one of the following precautions immediately.

- (1) Cyanide the trees, or
- (2) Drive every immature insect from the trees on to the ground by

means of tapping the branches of the trees with a padded stick, so as to dislodge the insects harbouring thereon and cause them to fall to the ground, from which they will be unable to return to the trees provided a bandage is first placed round the trunk of the tree and is then smeared with tanglefoot, or

(3) Spray thoroughly with a contact spray such as an oil emulsion-resin and soda wash, nicotine sulphate, or Boulli labordi.

These sprays will kill quite a number of insects and will cause others to fall to the ground from where they are unable to return to the trees, provided a bandage smeared with tanglefoot, as recommended above, is placed round the trunk of the tree.

If these simple precautions are followed out by every grower without delay the damage done by these insects will be reduced to a minimum, but if, on the other hand, the bugs are allowed to mature, the mature insects will produce countless thousands of eggs with which to carry over the pest from season to season. Mature, viz., winged insects must be gathered and destroyed by hand.

The best time to do this is in the early morning as they are then sluggish and do not take wing readily.

The Agricultural Chemist has supplied the following formulas for Boulli labordi and tanglefoot:—Dissolve 8 ounces of resin, 3 oz. caustic soda, 6 oz. methylated spirits and 5 oz. liquid ammonia in a quart of water. Heat if necessary to dissolve the resin and add water to make up four gallons

To make tanglefoot:—1. Melt together 8 parts resin, 4 parts turpentine, 4 parts rapeseed oil, and half a pint of honey, or (2) Boil to a thick paste 1 lb. of resin, 3½ oz. linseed oil, and 3½ oz. molasses, or (3) Carefully boil linseed oil until it becomes syrupy and tack on cooling.

New Zealand.

Fruit Control Bill.

Export Guarantee of 1d. per lb.

The Fruit Control Bill at present before the New Zealand Parliament is meeting with considerable opposition. Nevertheless, officers of the Fruit-growers' Federation Ltd. are working hard to secure the passing of the Bill.

The Minister for Agriculture, Mr. Nosworthy, has announced his willingness to renew the guarantee for 1d. per lb. on Apples exported for 1925, covering 300,000 cases. He suggested that when the industry gets its organisation into line in the course of a year, it might be able to do without the guarantee. The amount to be paid by the Government is approximately \$6,600.

Victoria.

DISTRICT NEWS AND NOTES.

Crop Prospects.

MONBULK.

Up to date the prospects of a really good crop of berries are very good. Cultivation has been hampered somewhat by the abnormal rainfall, but the bushes appear to be in splendid heart, and given a reasonable amount of sunshine, there should be a very good harvest.

Plums also appear to be likely to bear heavy crops. Of recent years, these have been unprofitable, because of the low prices realised. An effort should be made to place the Plums grown in the State in the hands of the consumer direct.

There is no shadow of doubt that the direct distribution of the berries has been the salvation of the berry fruit industry, and what has been done with berries should also be possible with larger fruits. But it appears to be necessary for the grower to readjust his packing arrangements. Six, twelve, and twenty pound lots in the larger fruits, with proper containers, would be a ready means of placing large quantities of these fruits in places where fruit is now more or less of a rarity. Large packages (case lots, etc.) necessitate much intermediate handling, which is costly, and this reduces the demand.

This district is now in a most prosperous condition, largely due to the increased prices for berry fruits, brought about by the direct trading arrangements originated by the Housewives' Association. The district is served by a good "Country Roads Board" road to Melbourne via Belgrave and Ferntree Gully, and the last link between Lilydale and here is now being metalled. Instead of each grower carting his own few berries, etc., on a slow horse waggon, to market, there is now a fine motor lorry service, and these lorries reduce travelling time and losses to a minimum. Berry land, which a few years ago could have been bought for £10 to £20 per acre, is now eagerly sought at £100 per acre, and is good buying at that price.

SILVAN.

Growers in the Silvan district have found it difficult to make the usual progress with their work on account of the extremely wet season that has been experienced (writes Mr. A. M'Cully, of Wandin, on October 18th). As far as the berry crop is concerned, this is looking very promising, but if the cold showery weather continues, crops will be late.

The Plum crop is very light, but Cherries are anticipated to yield a fair harvest. Apples are looking exceptionally well, being now in full

bloom, but it is too early yet to say what the setting will be.

WANDIN.

Prospects Generally Satisfactory.

Mr. J. M. Mitchell, Wandin, writes under date, 21/10/24:—

After the way the thrip shattered my stumps last year, it seems presumption to again attempt to anticipate the coming year's crop. However, one game lost is no reason for abandoning the game.

Though the weather is wet, and on the cold side, the prospects of the berry crops are decidedly good.

Strawberries are assured.

Logans are healthy, and no sign of thrip in buds, so promise good crops.

Raspberries, likewise it is just a bit too soon to say definitely anything about Blackberries.

Cherries bloomed well, but have set very light. Gooseberries good. Pears light. Plums fair. Apples heavy blossom. Passion plants very healthy.

With the advent of new metal roads this district promises to take a leading place in the fruit world in the near future.

HARCOURT.

Crop anticipations are stated by Mr. J. H. Lang to be shaping thus:—Pears,—Heavy, with the exception of W. Nelis, which are patchy.

Apples,—All varieties blossomed well, and there should be a heavy crop. Dunns (Munroe), Jonathan, Rome Beauty, London Pippin are the principal varieties.

Owing to the wet spring there are evidences of Black Spot, but at present it does not look as if it will seriously affect the crop. Spraying for this disease being fairly general.

Plums,—Good.

Growers are busily engaged in marketing Apples from the cool store. Owing to the good prices obtainable on all markets the season will finish earlier than usual.

Cultivation has been retarded on account of the wet weather. There has been an unusually strong growth of trefoil, cape-weed, etc., in many orchards; this when ploughed in, will add humus and nitrogen to the soil, and be generally beneficial.

Delivery of hardwood shooks has been started from a mill on Mount Alexander. The timber is of good quality and well suited for case making.

ARDMONA AND COBRAM.

Mr. Frank T. Pullar, of Ardmona, reports as follows:—

Apricots appear to be better than usual. Owing to excessive spring rains the fruit is affected with Shot Hole, where not properly sprayed.

Peaches.—Pullar's Cling. Lighter than for a number of years. It looks

as if there will be further thinning out of fruit at stoning stage in November.

Other clings fairly good. Elberta Peaches very light.

Pears.—Chiefly W.B.C. Pears are grown in these districts. Crop prospects at present look favourable to a good crop, but it is too early to form a definite opinion.

Anticipating that there will be a surplus production of Williams' Pears after the factories have secured their supplies, growers in the northern districts are proposing to raise an advertising fund with which to advertise and push the sale of W.B.C. Pears on the fresh fruit markets and elsewhere. The movement is being substantially supported, and it is expected that advertising will commence about the end of December.

It is proposed to confer with the Retail Fruiterers' Association with a view to having posters placed in fruit shops on which will be given particulars as to uses Pears can be put to and recipes, etc., for use; also stating the time when the fruit can be bought to best advantage. Hints on ripening will be included.

It is recognised that to properly distribute fruit, the best method is to use the existing trade channels.

Shepparton Enterprise.

The Secretary (Mr. W. Stewart) of the Shepparton Orchard Products' Ltd. has submitted the annual report of the company, which shows that much progressive work has been accomplished during the past year. The turnover has been considerably increased, and the expenses show a large reduction.

The action of the directors in building a new packing shed has been fully justified by results, direct handling into trucks effecting a large saving in expense, and being much easier on the fruit.

The company was the inaugurator of the fruit trains, i.e., the selling of fruit from trucks at various stations en route through country districts. This pioneer work has so far not met with the success anticipated, but the experience gained has been valuable.

The total output for the past year amounted to 35,000 cases, which is not nearly the capacity. The bulk of the fruit is sent to Melbourne and Sydney, but quantities have been packed for export to England, New Zealand and North Queensland. This latter branch of the business is steadily increasing.

The auditor's report was also received, showing a net profit of £35 for the year, after making an allowance of 10 per cent. depreciation on machinery and plant.

MERRIGUM.

The fruits grown in the Merrigum district are principally Peaches, Apricots, Pears (W.B.C.), Oranges, Lemons, table Grapes and Prunes.

Crop Anticipations.

Apricots.—Medium to light, possibly only half the yield of last season. The fruit is slightly hail-marked, as a result of the storm early in October.

Peaches (Dessert).—(Early), similar to last season; (Mid-season and Late), full crop.

Elbertas, light; **L. Palmerstons**, a full crop expected.

Peaches (Canning).—Early Clings and mid-season (Tuscan and Phillips) are expected to yield an average crop. The Orange Clings, which have a strong tendency to fall, are reported to have the heaviest setting for some years. Pullars' will probably be less plentiful from Merrigum than last year.

Citrus Fruits.—These are showing plenty of flower buds.

Pears are also flowering well, but it is rather early to estimate the probable crop yield.

Prunes are reported to be showing an average setting.

The above estimate is only based on present appearances. The critical period of stoning has yet to come, when often half of the fruit falls. Green and black aphid are showing, also "leaf curl" on the Peaches, where they were sprayed during stormy and showery weather. The trees, however, which were sprayed under favourable conditions, are clean.

The nicotine oil spray for aphid and scale is becoming popular, and is very effective, being the best aphid spray yet introduced, but it is necessary to exercise care in preparing it.

The first lead spraying operations for Pears have been carried out.

Portion of the manuring work has been effected, bonedust being principally used. Superphosphate and mixtures, such as market garden, potash, ammonia and super are generally used prior to a watering or irrigation and worked in later, about 6 lbs. per tree being applied.

Power spray pumps are used in practically all orchards, and several growers are doing their

cultivation by tractors,

which give good results, particularly by doing the work in half the time.

Cultivation.—No ploughing is done in the Merrigum district until after the bluestone spraying is effected, which is always towards the end of August. Some growers first go

around each row of trees with a one-way disc cultivator, and take away as much as possible from the trees, leaving strips of from 9 to 10 ins. All rubbish and grass are then removed from the bottom of the tree by hand, leaving a clean tree for the season. Later, this is ploughed back, leaving the finishing furrow in the middle of the row. This becomes filled up by the cultivation during the summer, and now the practice is to plough up to the trees each season.

On the other hand, some growers may only strike out and plough up two furrows to each row: then water down the furrows and complete the

ploughing as soon as the ground is workable.

The water is supplied from the Waranga Basin by gravitation, this being only twelve miles distant.

The output is sent to Melbourne and Sydney, and the canning factory at Kyabram: the latter factory will commence Tomato canning next season.

The soil in the Merrigum district is capable of growing all kinds of fruit, the land being good, plenty of water available (no salt), a healthy climate, and another advantage is that

it is situated only five hours' train journey from Melbourne.

State Advisory Board.

Several matters affecting the fruit industry were dealt with at the monthly meeting of the State Advisory Board during October, under the chairmanship of the Minister for Agriculture, Mr. Hogan.

On the motion of Mr. B. S. B. Cook, of the Central Citrus Association, and seconded by Mr. V. R. McNab, it was resolved that the Government be urged to enforce the sale



Winning Exhibit of Cool Stored Fruit by the Wantirna Cool Stores Co., at the recent Royal Agricultural Show, Melbourne.

of fruit by the dozen. The Minister stated that he would be pleased to place the recommendations of the Board before the Cabinet.

The matter of registration of orchards was introduced, and Mr. Hogan pointed out that the Government was still waiting for more unanimity on the part of the growers. The Government required at least a majority report from the growers in favour of the proposal before it could give effect to it.

In regard to the adoption of oiled papers for wrapping fruit in preference to ordinary paper, Mr. J. M. Ward, Supt. of Horticulture, stated that according to tests carried out by Mr. D. B. Adam, B.Sc., in various country cool stores, and at the Government cool store at Victoria Dock, no advantage was to be gained in adopting the use of oiled wrappers.

The meeting concluded with a general discussion on the necessity for applying the Commonwealth regulations to all fruit sold, whether in open case or otherwise.

Victorian Fruitgrowers' Central Association.

The monthly meeting of the Executive of the above Association was held on October 21st. President (Mr. J. W. Bailey) in the chair. Mr. Bailey reported regarding matters which had been discussed by the State Advisory Board, including the selling of fruit numerically, instead of by the pound, and the registration of orchards. In regard to the latter matter, he stated that the Government did not appear sanguine of getting the Bill through Parliament. Opposition was expected from members of Parliament. The Bill was not likely to be brought forward this session.

Pear Shipments.—It was reported that Mr. S. J. Perry was quite prepared to arrange for Pear shipments if growers would guarantee to fill the space. Mr. Ward stated that the State Rivers and Water Commission Department was endeavouring to arrange for a shipment of about 10,000 cases of Williams' Pears. The Government proposed to pay freight, and supply package; the growers to supply the fruit only. It was hoped to fill a complete hold with the one variety of Pears. Further developments in this matter would be notified later.

Mr. Ward also reported regarding the **grading regulations** which are likely to be brought into operation for the local trade early next year. These regulations were modelled on similar lines to those operating under the Commonwealth Regulations.

Mr. McNab reported on the new wages log, which had been served upon orchardists by the Australian Workers' Union. The Defence Committee had this matter in hand, and were consulting with their solicitors in regard to putting in a counter claim respecting the working conditions as set out in the log.

South Australia.

Annual Conference of Fruitgrowers' Association.

THE ANNUAL CONFERENCE of the South Australian Fruitgrowers and Market Gardeners' Association was held at Adelaide during October. The president, Mr. C. W. Giles, occupied the chair.

Address by Attorney General.

The Hon. J. W. Denny (Attorney General) opened the conference in the unavoidable absence of the Premier (Mr. Gunn) and the Minister for Agriculture, Mr. Butterfield. Mr. Denny said the following were necessities under modern conditions:—(a) Scientific workers, who discovered new methods of increasing production, such as superphosphates; (b) those who improved the breeds of stock and plants, such as cattle and fresh varieties of fruit and trees; (c) those who discovered methods of destroying pests; and (d) who opened up new markets and improved trading conditions. The Government entirely approved of all who assisted in those directions, and would give every encouragement that lay in their power. The future of the producers of all classes lay in co-operation and pooling. He was astonished that more had not been done by Australian producers in that direction. In Canada he found that the principles of co-operation were almost universally applied to every branch of primary production, and they exercised enormous influence not only on production, but on distribution and exchange. In some cases they owned their own banks.

Market Problems.

Careful consideration was being given by the Government to the request of the growers' representatives for financial backing to enable the proposed Jam fruit pool to be established. Unfortunately the financial position was extremely difficult, and the matter one that could not be decided without the most careful consideration and investigation and the support of the bankers.

If possible the Government would assist the establishment of a fruit and produce market at Port Adelaide, restricted solely to returned-soldier producers. With regard to dried fruits, the A.D.F.A. was endeavouring to maintain prices locally and sell the surplus overseas, yet independent growers were taking advantage of the local market and neglecting export. The Government was seriously considering legislation to control local sales, which in conjunction with the Commonwealth legislation dealing with export should ensure at least that all growers were put on an equal footing.

Continuing the Attorney General stated that with regard to the Wine industry the bounties offered by the Federal Government should materially help in increasing the export trade. The wine and spirit industry was probably the only primary industry of

any magnitude that was subject to a special tax in the form of excise duties, and in view of the very large revenue collected in South Australia by the Commonwealth Government, the State Government felt that the measures taken by the former to assist the industry did not err on the side of generosity. It was the intention of the Minister of Agriculture to endeavour to arrange before the next Grape season for a conference between representatives of the growers of wine and spirit Grapes, the co-operative distilleries and purchasers of spirit and of Grapes for wine making, with a view to fixing minimum prices for Grapes and for spirit.

He had noticed on their agenda paper a proposal for an orchard registration fee, to raise funds for organisation purposes. While it would be out of place for him to express any opinion on that particular suggestion, every one must realise the urgent need for organisation in the present state of business. Further than that growers would readily appreciate the fact that any body of producers which had shown a desire to help itself could expect more sympathetic consideration from the Government and the public than an unorganised section.

Annual Report.

In his report the President (Mr. C. W. Giles) recorded greater activity by the association in endeavouring to solve the problems resulting from increased production. The growers generally recognised that organisation was the first essential step towards the solution of their problems. They had found the Standard Case Act difficult to work under. However, they had solved the problem, and matters were now going smoothly. The benefit of last season's Federal

Canned Fruit Pool,

were not appreciably felt by this State, owing to there being a light crop. But in view of a heavy crop this season in all the States they were endeavouring to arrange for a continuation for another season. Representations had been made to the State Government to finance a local pool for Jam fruits this season. A quantity of soft fruits and Almonds were despatched to the British Empire Exhibition, with a view of advertising the productiveness of the State. A further experimental

shipment of Plums

was sent to the London market. That was the third, and they were now in a position to know what varieties were most suitable, and they were now assured of a large market for good Plums. The association was represented at the Australian Fruitgrowers' Conference, held in Hobart last May, by three delegates. The subjects placed on the agenda were for an increase of duty on imported Lemons, and to encourage the consumption of fruit juices, by prohibiting the sale of synthetic compounds. They were passed on to the Federal Government, which was dealing with the matter.

The Applegrowers section was doing good work by grading, packing, and exporting under one registered label.

The Grapegrowers section was working for their particular interests, and had obtained a bounty on certain wine exported, which would materially affect the prices of Grapes next season. It was notable that the bounty would be paid out of the taxes collected from the industry. Branches had been opened at Cudlee Creek and Clare, and they were arranging for one in the Barossa district. The Citrus Growers' Association and the Barossa Vinegrowers had both become affiliated with the association. The association membership had increased to 815.

Orchard Registration Fee.

Mr. J. Donaldson moved, "That the Executive of the S.A. Fruitgrowers' and Market Gardeners' Association affirm the principle of adopting an orchard registration fee for organising work; and that we ask the present Government to pass an Act to legalise the collection of the same."

Mr. Donaldson said he thought the time was ripe for the introduction of the fee. The whole of the growers' conferences of Australia were satisfied with the method proposed for securing funds for organisation work. Victoria and New South Wales were now attempting to get an Act through their Parliaments. He thought that money should go toward financing the marketing of the fruit of the State. It would build up a big balance at their disposal, and would not be a hardship to any one.

Mr. H. Wicks said he considered it was a sensible way of securing funds. They would be repaid one hundredfold by the benefits that it would accrue to them.

The members unanimously adopted the motion.

Pure Fruit Drinks.

Mr. R. A. Howes moved, "That our State Government be asked to have an analysis made of temperance drinks, particularly those bearing the labels of the name of a fruit, or a name purporting to be the juice of a fruit, and that the State Analyst be asked for an expression of opinion on results of the analysis."

The motion, said the proposer, was of profound interest to producers as, if the drinks were true to label, many tons of fresh fruit would be cleared from the markets, relieving the glut which appeared season after season. It had been found, however, that the large majority of the juices were really the product of synthetic chemistry. He thought it was only right that the manufacturer should be protected by having all brands and various samples of local pure fruit juice analysed, to detect any local or foreign synthetic products. The Commonwealth Analyst should be asked for an expression of opinion regarding the physiological effect upon the constitution, and consequently, the wholesomeness of such drinks. Salicylates in goods were very injurious to health,

and the indiscriminate use of them should not be allowed. It had been suggested by Mr. Staniford, M.P., that an addition should be made, adding to the motion the words "with a view to introduce legislation to prevent the sale of synthetic compounds in the production of fruit juices." The members unanimously adopted the motion.

Election of Officers.

Office-bearers were elected as follows:—

President, Mr. J. B. Randell,
Vice-President, Mr. C. H. Ragless;
Executive Committee, Messrs. C. W. Giles, H. Wicks, C. T. Fisher, J. Donaldson, R. H. Howes, R. Hunter, H. B. Robson, E. H. Edwards, J. Turner, and A. O. Pike.

DRIED FRUITS.

Compulsory Pool Contemplated.

The Premier of South Australia (Mr. Gunn) stated the position as regards dried fruits is as follows:—"The position of the dried fruits industry presents an unprecedented problem to the State Government, and it seems as if collapse is staring the industry in the face. In the interests

H. M. WADE & CO. Fruit Merchants

Prompt Advices of Sales
—CHEQUES WEEKLY—

**471 FLINDERS LANE
MELBOURNE**

of both fruitgrowers and taxpayers, seeing that millions of repatriation money is involved, the Government feels that something will have to be done to organise the industry on better lines. South Australia is willing to confer with the other States, even to the extent of taking steps to establish a compulsory pool."

Fruit Crop Prospects.

Mr. H. N. Wicks, of Balhannah, South Australia, writes, under date October 20th:—

The principal fruits grown here are Apples, Pears, Plums and Prunes, and taking into consideration the exceptional crop experienced in Apples and Prunes, and also Pears last season, the present prospects are indeed bright.

Apples, the leading varieties of which are Jonathan, Rome, Stone, Statesman, and Rokewood, are blooming somewhat in patches.

Jonathan, taken throughout the district, will, as far as can be judged at present, show a medium crop. Patches of this variety did not bloom at all, while some have bloomed lightly, and others heavily, so that an average would point to a medium setting.

Romes are blooming at time of writing, and as far as can be seen, will be from below medium to medium, with perhaps an isolated garden with a fairly heavy showing.

Stone Pippin, in most instances, have bloomed very heavily, and should turn out well, but as I have only a few of this line, I cannot speak with anything like authority.

Generally speaking, this district should experience a medium crop.

Pears are showing heavy here, and have set a heavy crop. Duchesse (Williams') is about the only line grown extensively here, but the odd lines have also set heavily in this district.

Prunes are showing light to medium, while Plums generally are heavy, with some varieties tending to a medium setting.

A Suggestion.

It would be of value if users of various makes of tractors to relate their experiences in orchard work with the machines, and also their difficulties which they, of course, experience. As Victorian men use these far more extensively than S.A. people, I think that this would be of value, as numerous growers are afraid to go into this matter owing to lack of experience, and would welcome items of this kind.

[We shall be happy to publish the suggested items from our readers.—Ed. "F.W."]

PERSONAL.

A farewell social gathering, in honor of Mr. and Mrs. P. T. Young (late of Ringwood, Vic.), was held in the Ringwood Town Hall on the 23rd September, when the honored guests were made the recipients of a cheque for £265 as a token of appreciation for the services rendered to the district by them. An excellent musical programme was given, and during the course of the speeches, reference was made to the invaluable services rendered by Mr. Young during his twelve years' residence in the district. Presentations were also made to Mr. Young by the Cool Store Trust, and the staff of the Ringwood branch of the E.S. & A. Bank, consisting of a pipe and gold cigarette case respectively. Mr. Young has been transferred to the Oakleigh branch of the E.S. & A. Bank.

Mr. D. C. Winterbottom is now the General Manager of the Mildura Co-operative Co. Ltd., in place of Mr. A. S. Hopkins, who recently severed his connection with the company.

AUSTRALIAN FRUIT EXPORTS.

Mr. A. H. Ashbolt's Scheme.

The ex-Agent-General for Tasmania, Mr. A. H. Ashbolt, who recently returned from London, has formulated a scheme for the regulation and control of the sales of Australian fruit in the United Kingdom.

The proposals were read at the last meeting of the Tasmanian Fruit Advisory Board, where a resolution was adopted in favour of sending the proposal to the Federal Advisory Fruit Council.

The scheme includes—(1) The passing of an Act by the Commonwealth Parliament to provide that all fresh fruit exported to Great Britain go through one controlling organisation in London; (2) That the London controlling agency be appointed from those interested in fruit growing and marketing; (3) Each grower to send his fruit through the present local agency channels, consigned, however, to the controlling agency in London; (4) The London control board to decide on the quantities for London, Liverpool, etc., and to hold back shipments which would tend to glut the markets, paying demurrage if necessary; to arrange credits with Australia and to decide on the quantities of fruit to be delivered to each agent for sale; (5) Freight and advances to growers to be authorised by the Commonwealth Government, the proceeds of the sale of the fruit to have as a first charge the settlement of these advances; (6) a per case levy to be made to pay the salaries and expenses of the London Control Board. (7) The desired Federal Act could be brought into operation by a request from the Executive Committee of the Fruit Advisory Boards.

[The foregoing proposals are sufficiently far reaching to engage the serious attention of all exporting growers. Mr. Ashbolt's programme needs to be studied in detail, and growers will have many questions to ask before adopting it. Growers have a right to expect much more information than has so far been made public. One thing is certain, viz., the Fruit Advisory Boards and Federal Council as at present constituted are not functioning effectively as the mouthpiece of the growers, and none recognise this more frankly than the members of those bodies. Legislation, as proposed by Mr. Ashbolt, needs the authority and support of the exporting fruitgrowers—particularly the Apple-growers—quite apart from any resolutions of State Fruit Advisory Boards or the Federal Fruit Advisory Council.]

Apples for Southampton.—The importance of shipping Australian fruit to Southampton is stressed by Messrs. W. Weddel & Co. (Aust.) Pty. Ltd., of 477 Collins-street, Melbourne,

which firm is the agent for Messrs. Simons Ltd., of Southampton, Glasgow, Liverpool, Manchester and Hull. In a circular just issued by Weddel & Co., they state that if sufficient sup-

port be forthcoming they will be able to secure regular allotments of space to Southampton for Australian shippers.

New South Wales.

NEWS AND NOTES.

CURLWAA IRRIGATION AREA.

Press Report.

Remarkably mild climatic conditions have continued to prevail during the quarter, and owing to the lack of heat, much work has been involved in the endeavour to complete the drying of Raisins fit for packing. The local product has, however, finally been delivered, and attention paid to pruning.

In ordinary seasons all fruit is in the sheds by about the end of March, and the grower looks for a short holiday, but this season there has been no opportunity for this as very little time was available for pruning, preparing for planting and for the first irrigation. The rainfall during the 3 months was, July 10 points, August 109 points, September 103 points, a total of 222 points.

Irrigation was started on the 4th of August and completed on the 26th, when 1,483 acres were watered to a depth of 7 inches, a total volume of 38,700,000 cubic feet being drawn from the river.

The fear that the fruit fly would attack the citrus crops on the area has been dispelled, and one of the best crops ever grown is being marketed at satisfactory prices.

At the Melbourne Royal Show, 16th to 27th September, collections of citrus and dried fruits were staged, the first winning easily First and Special prizes, and the Watson Shield, and the latter First and Special prizes. This is the second year in succession that the Shield has been awarded to Curlwaa. Full points were gained for quality.

During August a visit was paid to the Area by His Excellency the Governor, Sir Dudley de Chair and Lady de Chair. A tour of inspection was made of the Area, the visitors expressing their pleasure at the progress and successful position of settlers.

Griffith.

At present the outlook appears promising for good fruit crops during the coming season (writes Mr. H. G. Such, General Manager of the Griffith Producers' Co-op. Co. Ltd.). The weather has been suitable, and no hail or wind storms or frosts noted during the flowering periods. Sufficient rain has fallen to obviate the need for general irrigation, although a large number of the orchards have been irrigated. It is too early for any estimate as to the citrus crops in sight, but generally speaking, flowering has been heavy, and as there have been two light seasons in succession, there is a probability of good crops during the coming season.

Apricots.—Medium to heavy. The Area crop is estimated at at least 1,700 tons.

T. STOTT & SONS
Fruit Merchants

Established 1882

A Trial Consignment solicited from Growers in all States.

Prompt Settlement.

11 WESTERN MARKET,
Melbourne

TASMANIA

We are the Leading Australian Firm of
FRESH FRUIT EXPORTERS,
JAM MANUFACTURERS (IXL Brand),
FRUIT CANNERS, HOP FACTORS (owning the largest cool stores for this purpose in the Commonwealth).

Supplies of Corrugated Strawboard, Genuine Sulphite Paper, Nails and best Packing Materials available at all times.

Sole Distributing Agents for the Southern Tasmanian Associated Manufacturers of Evaporated (dried) Apples.

Agents for—

Federal Steam Navigation Co. Ltd.,
Scottish Shire Line of Steamers,
Osaka Shosen Kaisha, London Assurance Corporation.

Correspondence Invited.

H. JONES & CO. LTD.,
HOBART

Fruit Shipments
LONDON

Liverpool and the Continent

W. D. PEACOCK
& CO.

24 Martin Lane, Cannon St.
LONDON, E.C., 4

AND HOBART, TASMANIA

Solicit Consignments

The High Standing and Long Experience of this Firm is a Guarantee that the Best Interests of Consignors will be conserved.

Cling Peaches.—Medium to heavy. The Area crop in sight is 5,000 tons.

Prunes.—Medium.

Grapes.—Medium.

Apricots to be Dried.

Owing to the large number of Apricots which will be produced, an effort is being made to dry a considerable proportion, and it is thought that the Apricot crop will provide considerably more than is necessary to maintain the right proportion of canning Apricots to canning Peaches. There is a large increase to be anticipated in the Apricot production of the Area, as there are about 1,500 acres planted, of which not more than 500 acres are in full bearing, and at least 400 acres are

been sprayed at the correct time with Lime Sulphur; also certain varieties not hitherto affected by the disease, have had severe attacks.

Leeton.

The local canned fruitgrowers have emphatically denied the statement made recently by Senator Wilson (Assistant Minister in charge of marketing) "that Leeton and Griffith growers had already sold the whole of next season's pack at prices equal to those of last year, which were regarded as satisfactory." At a well-attended meeting of the local growers, the following resolution was passed:—"That negotiations respecting contract fruit prices be immediately opened with the Irrigation Commission with the object of requesting an increase of £1 on cling Peaches, and £2/10/- per ton on Apricots."

Lavington.

The following is a preliminary report of the fruit crop for the coming season in the Lavington district. Mr. J. Buchhom writes:—

Apples.—The principal varieties grown are Jonathan, Rome Beauty, Granny Smith and Cleopatra. The flowering of all varieties is even heavier than the record flowering (and crop) of last season, and the setting, as far as can be ascertained, is very heavy.

Pears.—The same remarks apply to Pears, of which W.B.C., Packham's Triumph, and Winter Nelis are the chief varieties grown.

Peaches.—A fair crop is anticipated of Briggs, High's E. Canada, Hale's, Elberta and Salway. Owing, however, to the prolonged rainy season, it is probable that the crop will not be quite so heavy as on the previous year.

Prunes.—The principal varieties grown are D'Agén, Robe de Sergeant, Sugar, and Angelina Burdette. With the exception of the last-named variety, which shows a fair crop, the setting is reported to be very heavy.

Grapes.—The Waltham Cross, Snow's Black Muscat, Red Prince, as well as Currant and wine varieties, are showing very well in spite of being rather badly affected with "downy mildew" late last season. One grower attributes the satisfactory prospects of this particular kind of fruit to the fact that the spraying was effected with full winter strength of lime sulphur as the buds were breaking, which is considered to be much easier and quite as effective as sulphuric swabbing.

The prospects of record crops of all classes and varieties have been somewhat reduced on account of the severe hailstorms which, in a few isolated places, have done serious injury to the more advanced fruits, especially Pears and Prunes. However, in spite of the hail there is every likelihood of very heavy crops.

The past planting season has been a record one, and in many cases or-

chards have been considerably extended. A large area of cherries has also been planted.

THE WOOLLY APHIS PARASITE.

Success in New Zealand.

The past summer has seen a great increase in the work of distributing the Aphelinus Mali throughout New Zealand (states Dr. R. J. Tilyard F.L.S., F.E.S., and Chief of the Biological Department, Cawthron Institute, Nelson, N.Z.). It is a remarkable fact that only three years from

Edward Jacobs & Sons

Covent Garden Market
LONDON, England

Solicits Consignments
of Australian Fruit.

Tasmanian Representative:

W. D. Peacock & Co. Ltd
PRINCES WHARF, HOBART

Shipping Number 418.

MARGETSON & CO. LTD.

Fruit Importers &
Salesmen

30 James St. and James
St. Warehouses,

11 Neal St.,

COVENT GARDEN
LONDON, W.C.

and at
Jamaica House,

9 & 10 Botolph Lane, London, E.C.
& 56-58 Stanley St., Liverpool

Sales by PRIVATE TREATY.
Prompt Returns & Settlements
Tel. Add.—FRUTERO, LONDON.
MARGETSON, LIVERPOOL

Head Office—Covent Garden
Market, London, W.C.

Bankers:

LLOYD'S BANK LIMITED
Law Courts Branch, Strand,
London, W.C.

Shipping Nos.

431 and 432

too young yet to produce any fruit this season. In 1925 almost the first results will be felt of the greatly increased plantings of clingstone Peaches in 1919-20, when nearly 1,000 acres were added to the Area's plantings. There is some indication that the Peach crop will fall below its possible maximum, due to the prevalence of Peach Aphis, which is calling for considerable attention in the way of spraying, and in some instances the crop yield has been materially reduced already. Leaf Curl is particularly bad this year, and, contrary to previous experience, has attacked large numbers of trees which had

COVENT GARDEN,
LONDON

**Ridley, Houlding
& CO.,**

Large Receivers of Australian
Fruits.

Solicit Consignments of
Apples, Pears, &c.,

Best market prices and prompt
account sales returned.
Correspondence invited.
Representative in Victoria

THE
International Fruit & Mercantile Co.,
410 Flinders Lane, Melbourne
MURDOCH BROS., Hobart

the date of its original introduction, the parasite has succeeded in practically eliminating the woolly aphis from large areas of orchard country in the Dominion. The unexpected and almost phenomenal success recorded from all parts of the country has been, in my opinion almost entirely due to the steady and persistent manner in which large numbers of carefully bred and packed specimens in healthy conditions have been sent out from the Cawthron Insectarium at Nelson, New Zealand.

300% INCREASE!

A Grower using a "Lightning" Fruit Grader all through this season says that his output has increased by 3 to 1
JUST THINK OF IT!

He now packs **300 cases** in the time it used to take to pack 100 cases.
 Are we not justified in saying that you **cannot afford to be any longer without a**

"LIGHTNING" FRUIT GRADER

The Grader which can never be superseded. The Grader with an
 Established Reputation and an Ever Increasing Popularity

Hundreds of interested growers at the Melbourne Royal Show have added their testimony that the
 "Lightning" Graders are the BEST AND MOST SUCCESSFUL THEY HAVE EVER SEEN.

Capacity up to 1,000 cases per day.

CANNOT BRUISE THE FRUIT.

Prices from £18/15/-



Grades APPLES, PEARS, PEACHES,
 APRICOTS, ORANGES, PASSION FRUIT, &c.

The "LIGHTNING" Combined GRADER and INSPECTION SORTER

This is the greatest labor-saver ever offered to the jam and canning fruitgrower. The Conveyor gently turns the fruit over and over, enabling the grower to sort out all that is blemished or overripe, and when attached as a feeder to the Grader, they make a perfect combination. Capacity up to 1,000 cases per day.

Lightning Fruit Grader Co.
 109 CROMWELL STREET, COLLINGWOOD, Vic.

Telephone J 1084.

Cable and Telegraphic Address: "LIGHTNING" Melbourne

Tasmania.

C LIMATIC CONDITIONS have varied to an extraordinary degree during the past month. Showery weather has predominated with occasional dry hot winds during the day, changing to colder nights. It is expected that these will have an effect on the setting of the crops.

The Apricots and Plums escaped the worst of this weather, and so far reports from the various districts show for satisfactory crops.

Apples and Pears are blossoming freely, varieties such as Scarlet, Sturmer and Cox's Orange Pippin being particularly heavy in this respect.

Black Spot is showing up to a limited degree on early Pears and some of the susceptible Apple varieties such as Cleopatra.

The showery weather experienced has made the application of the "blossom pink" sprays very difficult, and growers have been much handicapped in applying these in an efficient manner. In the majority of cases opportunity has been taken to make the utmost use of every period of fine weather, and spraying has superseded all other orchard operations. After the disastrous results experienced last season it is hoped that climatic conditions will favor the crops this year,

as it is realised that this is the main factor controlling the development of the crops.

Fruit Packing Classes.

The competition organised by the officers of the fruit division among children attending the departmental classes which have been held throughout the Huon district attracted 36 entries. During the season approximately 200 pupils attending the various State schools have received tuition from the departmental packing instructor (Mr. W. C. Page). Commenting on the exhibit, the judge, Mr. P. H. Thomas (State Fruit Expert) expressed himself as well satisfied with the progress which had been made in spite of the fact that the adverse season and shortage of crops had made it difficult to carry on the classes. The cases of fruit entered for competition were all packed by children under 14 years of age, and had to stand transit from Huon districts to the Show ground. In making the awards the judge did not take into consideration the quality of the fruit so much as the general get-up, packing, wrapping, and alignment.

Awards:—Best wrapped and packed case of 2½-inch Apples, open to boys under 14 years, attending Agricultural Department's packing classes, special prizes given by Messrs. J. Adams, Son and Co., Liverpool, special prize given

by Mr. W. C. Page, to be equally divided between schools, Reg. Smith (Huonville School) 1, Jack Pitt (Huonville School) 2, Monte Harris (Ranelagh School) 3, Bert Roberts (Ranelagh) special, Ben Menzie (Huonville School) special. Best wrapped and packed case of 2½-inch Apples, open to girls under 14 years, with similar stipulations, Jean Wright (Huonville School) 1, Rita Roberts (Ranelagh School) 2, Hilda Hay (Huonville School) 3, Betty Lawson (Cradock School) special.

Overseas Fruit Marketing.

A number of interesting and informative addresses have been delivered in the various fruit centres by Mr. F. Cole, a director of the Port Huon Fruitgrowers' Association.

Mr. Cole visited the markets of the United Kingdom last season on behalf of his association, and was able to gain first hand information as to the disabilities existing in the marketing of fruit. He is emphatic that some control should be exercised over the selling and disposal of consignments in England, and in conjunction with Mr. J. P. Piggott the manager of the Port Huon Association is approaching the Federation of Brokers to see if a scheme cannot be devised to allow for payment of freights at the port of import.

Union Wages Log.

Another attempt is being made by the Australian Workers Union to compel the fruitgrowers of Tasmania to pay extravagant rates of wages for the labour which they employ in the harvesting of their crops.

A more inopportune time to launch such a log as that which has been received, could not have been chosen. There are scores of fruitgrowers in the Huon who last year were unable to pay their way. Many others have been forced out of the business altogether. In the face of this the union demands £6/10/- per week for

Apart from the danger of introduction of Bacteria Blight (*Bacillus Amylovorus*), it would be a great blow to growers who have fruit in cold store and are looking to this to recoup their losses during the early portion of the season.

STATE ADVISORY BOARD.

A meeting of the Tasmanian State Fruit Advisory Board was held at the Department of Agriculture, Hobart, on October 17th.

There were present:—Messrs. A. Davies (Chairman), N. Campbell M.H.A., Sir Henry Jones, and E. H. Thompson (representing H. Jones & Co.), F. Walker, T. J. Eddington, J. H. Astell, J. P. Piggott M. H. A., B. J. Pearsall, and V. J. Skinner, and Mr. P. H. Thomas (Secretary).

Death of Mr. Hedley Calvert.—A vote of sympathy was accorded to the relatives of the late Hon. H. Calvert M.L.C. The meeting adjourned for half an hour as a mark of respect.

Sugar Conference.

The Chairman and Sir Henry Jones detailed to the Board the action taken in respect to the Conference between the Sugar-growers Association, Fruit-growers, Canners, and Jam makers, re the supply and price of sugar for fruit processed in Australia.

It was decided "That Mr. A. Davies be elected to represent the State Fruit Advisory Board at the coming Sugar Conference in Melbourne."

Limitation Period of Export.

The Secretary read the reply received from the Prime Minister in respect to the proposed limitation period of export submitted by Messrs. Munro & Co. Ltd.

Fruit Juices.

It was decided on the motion of Messrs. Astell and Campbell "That the Secretary of the Australian Fruit Council be again communicated with pointing out the details of American competition and the effect on sales over the 1923 and 1924 period."

It was decided "That the Board support the introduction of legislation governing the import and sale of fruit juices, essences and flavors, so as to assure that these constitute the true fruits represented on the label."

Damaged Fruit Cargoes.

It was decided on the motion of Messrs. Campbell and Astell "That the Secretary write to Messrs. Yeoward Bros, in regard to the request of the Board to lodge claims re damaged fruit consignments. Also that the London Federation be communicated with and asked in how many cases this has been carried out during the 1924 season together with a special report on the "Palermo" shipment."

Full enquiry is to be made from the Tamar Farmers' Association as to the condition of fruit, packing, despatch, and inspection of consignments before leaving Beauty Point.

Marketing of Fruit Overseas.

A vote of appreciation was accorded to Mr. Ashbolt for the preparation of the scheme of Overseas fruit marketing control.

It was decided to call a special meeting of the Board on November 4th to further discuss the matter.

Fruitgrowers' Organisation Fund.

The Secretary outlined a scheme of contribution to this fund from berry and small fruit growers on the following basis:—

Raspberries and Currants 1d per cwt.
Strawberries 1d per cwt.
Plums and Apricots 1/16d per bushel.

It was decided to request processors to levy on this basis during the coming season.

SWANN & Co.

Established 1822.

A century's experience in handling

FRUIT OF ALL DESCRIPTIONS

All Consignments for U.K. will have Personal Supervision and Attention

Account Sales and Cheques despatched immediately after sale.

**3 SALTER'S HALL COURT,
London, E.C., England**

Cables:—FIREBRICKS, LONDON
Bankers:—Bank of England.

Australian Representative
Chas. E. Howship, 129 Queen-st.,
Melbourne, and Surrey Chambers,
Perth, W.A.

Victorian Agent: H. M. Wade &
Co., 471 Flinders Lane, Melb.

J. G. MUMFORD

(Established 1906)

Fruit & Vegetable Salesman

Account Sales Posted Daily

APPLE EXPORTER

"Fruit Exchange,"

449-451 FLINDERS LANE

Branches { Western Market
Victoria Markets

MELBOURNE

Reference—Satisfied Growers in all States.

pruners, £5/10/- for box-makers, and £5 for unskilled labour.

The claim has been taken up and is to be vigorously contested by the Tasmanian Fruitgrowers, Farmers and Pastoralists' Association. The situation is Gilbertian, as at the same time as the log was received, fruitgrowers were importuning the Government to grant them assistance so that they may carry on and remain on their holdings.

Interstate Fruit Markets.

Reports are to hand that strong pressure is being brought to bear upon the Federal Government, both at Sydney and in Brisbane, to get permission to land American Apples.

R. JOEL & SONS

16, 17, 20 RUSSELL ST.
Covent Garden Market
LONDON, W.C.2

And at 10 Vernon Street, LIVERPOOL

**Open for
Consignments of
all Australian,
Tasmanian and
New Zealand
Fruits**

**SALES BY PRIVATE TREATY
ONLY.**

WHICH GIVES THE BEST RESULTS

PROMPT RETURNS AND
SETTLEMENTS.

Cash advanced to cover freight
and overcharges, etc.

Cablegrams:

AINSJOLFRU-RAND-LONDON.

Agents Wanted in—
MELBOURNE, HOBART, NEW
ZEALAND and WESTERN AUSTRALIA.

BANKERS:

National Provincial Bank Ltd.,
Long Acre, London. Barclay's
Bank, Henrietta Street, Covent
Garden.

Fruit Census.

The Secretary outlined the scheme of census of fruit trees as requested by the Commonwealth Government.

It was decided to support the scheme and to request Fruit Boards and Municipal Councils to compile the required data.

Northern Tasmania.

Reports from Glengarry, West Tamar, Tasmania, indicate that there is every promise of a bountiful crop of Apples and Pears, particularly the former. The spring, however, has been wet, and there is a possibility that black spot may develop.



SULPHATE OF AMMONIA, throughout the World, has *always* enjoyed a fair measure of popularity, as a source of the supply of nitrogen to plant life. RECORD Sales during the current season indicate its Australian reputation was *never* greater, and it may be fairly termed

“The Ideal Nitrogenous Fertiliser”

Sulphate of Ammonia literature from—

The Australian Gas Light Co., Haymarket, Sydney, N.S.W.; The Broken Hill Prop. Co. Ltd., Newcastle, N.S.W.; The North Shore Gas Co. Ltd., 193 Alfred Street, North Sydney, N.S.W.; The Metropolitan Gas Co., 196 Flinders Street, Melbourne, Vic.; South Australian Gas Co., Weymouth St., Adelaide, S.A.

TASMANIA.

A Press Controversy.

During October a press controversy took place in Hobart between Mr. J. P. Piggott, Manager of the Port Huon Co-operative Association and Messrs. H. Jones & Co. Ltd. Mr. Piggott stated that Messrs. F. W. Moore & Co. Ltd. and the Overseas Farmers' Co-operative Federation Ltd. were unnecessary middlemen, as they did not actually sell the fruit.

Messrs. Jones & Co. defended Moore & Co., stating that the latter did actually sell fruit, and, in addition, exercised effective oversight over the sale of the fruit by agents. Further, that Moore and Co. were foremost in the campaign for the reduction of the consolidated charges.

Goats Eat Blackberry Bushes.—A correspondent points out that goats are very serviceable in ridding plantations of useless Blackberry bushes. They gobble up the young shoots as fast as they appear. Goats also provide milk, butter, meat.

FLOWERS AND FRUIT FOR HOSPITALS.

Country Residents Can Assist.

The Canterbury and District Horticultural Society (Vic.) is to be congratulated on the inauguration of a scheme whereby persons who have flowers, fruit, etc., to spare, may forward them to any hospital desired without incurring any expense. The Secretary, Mr. H. A. Howard, of 13 Cross-street, Canterbury (Vic.), will be pleased to send suitable boxes and labels addressed to persons either in the country or suburbs who wish to forward flowers, etc., to any institution. The boxes are received at any railway station, and the empty boxes returned to the station from which they were forwarded free of charge.

Mr. Howard is anxious to hear from some kind friend in the country who is willing to forward flowers, etc., to the Queen Victoria Memorial Hospital.

The scheme is worthy of support, and it is hoped that people who live in country districts where wild flowers

are to be gathered in season, or who can assist in the other ways indicated, will take the opportunity of encouraging these worthy objects.

Spraying for Aphis and Scale.—The oil and nicotine spray, which has proved effective in ridding trees of aphis and scale (referred to in last month's "Fruit World," was first discovered and made known by the Victorian Government Entomologist (Mr. French) and Mr. L. Pilloud, Orchard Inspector. The ingredients are 1 gallon red oil, 1 pint Nicotine Sulphate (40 per cent. Nicotine), 2 lbs. soap, and 80 gallons water.

This remedy was first tried on Woolly Aphis on Apple trees, and was immediately effective. Since then it has been found very serviceable in fighting scale on citrus trees.

Experience keeps a dear school, but fools will learn in no other, and scarcely in that; for it is true we may give advice, but we cannot give conduct. They that will not be counselled cannot be helped. If you do not hear reason, she will rap your knuckles.—Dr. Franklin.

OBITUARY.

By the death of Mr. F. H. G. Rogers, of the Fruit Exchange, Sydney, a familiar figure was removed from the fruit marketing business of Australia. Mr. Rogers, who died on 19th August last, had been associated with the fruit industry for about forty years, being a prominent figure in the operations of the Sydney Fruit Exchange. He took an active part in all movements that were calculated to benefit the fruit industry generally, was one time President of the Fruit Merchants' Section of the Chamber of Commerce, and had been until his death, the Secretary of the Selected Committee of Agents since the inception of that body.

The late Mr. Rogers leaves a widow and grown-up family of daughters and one son (Keith). The latter will continue to carry on the business. The loss of Mr. F. H. G. Rogers is deeply mourned by a large circle of personal and business friends.

Hon. H. D. C. Calvert M.L.C.

Loss to Tasmanian Fruitgrowers

After a severe illness, the death occurred of Hon. David Charles Hedley Calvert M.L.C. during October, at his residence at Surges Bay. Death was due to haemorrhage following pneumonia.

His death removes from the Huon district one of the ablest and most popular of the public men of the neighborhood, and his recent election to the Legislative Council, opening as it did a new and wider sphere of usefulness, will make his loss even more keenly felt among the fruitgrowers who realised and appreciated very fully his stalwart championship of their interests.

Deceased was for many years actively engaged as an orchardist at Surges Bay. He represented the Surges Bay ward on the Esperance Council for many years, and was a most progressive member. He also held the position of Chairman of Directors of the Port Huon Fruitgrowers' Co-operative Association for many years. He was a member of the old Central Fruit Committee from its inception, and had been a member of the State Fruit Advisory Board which

took over the functions of the Central Fruit Committee.

Mr. Calvert leaves a family of two sons and two daughters, the youngest being about 11 years of age.

FRUITGROWING IN SOUTH AFRICA.

Official Statistics of Production and Export.

In response to an enquiry by the "Fruit World," the following interesting information has been made available by the South African Department of Agriculture:—

Apples in South Africa.

According to the latest Union statistics taken in 1921, the area under Apples is given as,—

14,000 acres in bearing,
7,500 acres non bearing, or a total of 21,500 acres under cultivation. To this may be added another 2,500 acres estimated as planted since 1921, making a total of 24,000 acres under cultivation.

The number of cases exported this season amounts to 6,500. The export is on the up grade and will probably be about twice the above amount next season. The varieties mostly grown for export are Rome Beauty, Ohenimuri, Delicious Versfeld, Rokewood, Jonathan and Wemmers Hoek; a small Apple somewhat similar to Snow (Pomme de neige). The high class Apples such as Ribstone Pippin, Cox's Orange, Newtown Pippin, Blenheim Orange and others of that type do not seem to do well in any of our fruit growing areas. The prices realised on the overseas markets compare favourably with those obtained for Apples from other countries.

Citrus Statistics.

Citrus.—(Citrus includes Oranges, Naartjes (Mandarins), Lemons and Grape Fruit).

According to the 1921 census there are 26,380 acres planted in the Union, of which 16,950 acres are in bearing and 9,430 acres non-bearing, to which add estimated planting of 2,720 acres from time of taking census, the total then becomes 29,000 acres of citrus under cultivation in the Union.

Export of Citrus fruits for season 1922-23 amounted to 535,412 boxes.

In short

535,412 boxes citrus,
1,020,066 boxes deciduous fruits
20,624 boxes Mangoes, Pines,
Melons &c.,
1,325,800 10lb. boxes dried
fruits, including
Raisins.

Total 2,901,902 boxes were exported

from the Union in 1922-23, 1st July to 30th June. Varieties of citrus mostly grown for export—Washington Navel, Valencia Late—du Roi, Cape and Transvaal seedling, Mediterranean Sweet. The Navel is not of late being so largely planted as the varieties mentioned, the more popular being Valencia Late and du Roi.

Latham Dehydrators

"STAND ALONE"

The "Rolls Royce" of the Artificial Drying World.

Some Installations for Foodstuffs.

Purchaser	Principal Prods.
Merbein Dehydration Trust, Mildura	Sultanas Raisins etc.
Tasmanian Dehydration Pty. Ltd. Bridgewater two plants.	Apricots Prunes Apples
Charles Martin, Yackandandah	Prunes
Swallow & Ariell Ltd. Port Melbourne.	Carrots Turnips Cabbages, etc.
Woorinen Co-op. Pack. Shed, Woorinen	Sultanas Raisins etc.
Aurora Pack. Co. Pty. Ltd., Irymple.	Sultanas Raisins etc.

D. J. LATHAM
157 Queen Street,
Melbourne, Australia.

LINING PAPER FOR FRUIT CASES

.... WHITE OR CLEAN PRINTED NEWSPAPER
is now available in large quantities for immediate delivery.

White, cut to size 18 x 42 or 18 x 25. Printed, uncut.

Prices on application.

The printed news consists of "Argus," "Age," "Leader" and "Australasian" new, undistributed copies, and therefore is perfectly clean. Cases for fruit neatly lined have an increased selling value.

Prompt enquiries requested to

ESMOND RUSSELL, 60 Queen Street, Melbourne
DISTRIBUTORS TO THE FRUIT TRADE.

Also obtainable from all Western Market Agents, and LAW FORD'S FRUIT EXCHANGE, PTY. LTD.,
Doncaster.

ANSWERS TO CORRESPONDENTS.

San Jose Scale. A reader at Dwellingup, W. A. asks the following questions:—

"I want to spray my Apples for San Jose scale as soon as the fruit has set, and reckoned on using Resin Soda, but my neighbours tell me that it causes a lot of trouble in sticking up the valves and packing of the pump. If you could give me any idea of how to overcome this trouble I would be very grateful. I should also like to know if Arsenate of Lead could be mixed in with Resin Soda without any harmful effect. Would an oil spray of summer strength be effective against San Jose?"

Answer (by G. W. Wickens, officer in charge, Fruit Industry W.A.)

To obtain the best results in combating San Jose Scale, the Apple trees should have been sprayed during winter while dormant. Two applications of Commercial Lime Sulphur at a strength of one gallon Lime Sulphur in 10 gallons of water, the first spraying to be applied before the 30th June, and the second as late as possible in August before the buds burst, would obviate any necessity for summer treatment; or in place of two sprayings with Lime Sulphur, one spraying with a reliable brand of spraying oil, and one Lime Sulphur will also give very good results.

Resin and Soda should be applied to the trees fairly hot. If that is done, and care is taken that immediately after being used the pump and hose are washed out with hot water, very little trouble will be experienced in sticking.

Arsenate of Lead cannot be mixed with Resin and Soda.

An Oil Spray of summer strength will certainly assist in controlling the pest during summer, but no summer treatment is as effective as that outlined above for winter.

Answer (by Geo. Quinn, South Australasian Government Horticultural Instructor).—

Fortunately for the fruitgrowers of South Australia we have not been compelled to fight the San Jose Scale.

In respect to resin wash spray, a good many years ago, before fumigation with hydrocyanic acid gas became the recognised remedy for the suppression of Red Scale of citrus trees, I formulated the following recipe, and this wash was considered the most effective dressing here.

The formula used here consisted of 10 lbs. resin (powdered), 10 lbs. washing soda crystals, and 5 lbs. of soap, either hard or soft being used. These were dissolved by boiling the soda and the sliced soap in a boiler containing about 5 to 10 gallons of water. The powdered resin was then gently stirred in to avoid the formation of lumps, and then the whole was boiled and stirred continuously to avoid frothing over. Occasionally a little fresh warm water was added to assist in preventing this frothing over.

After about half-an-hour's boiling, the resin is dissolved and the solution resembles strong tea in color. This stock solution was diluted to make 50 gallons of spray for Red Scale, but for aphides it could be further broken down to 80 or 100 gallons, according to the species under treatment.

This diluting should be done with warm water, as less coagulation appears to result than when water at ordinary temperatures is used.

In my personal experience—and I made and used hundreds of gallons in experimental trials with the old hand spray pumps—the clogging of the valves and nozzles was not a very serious item, but the compound is a disagreeable one to use as it dries "sticky" on the skin and clothing of the workmen as well as on the trees. It is, however, in my opinion, superior

as a scalcicide to any oil emulsion that has yet been produced, and less treacherous to use on vegetation, providing always the trees have sufficient soil moisture to enable them to maintain rapid transpiration—which is a very essential point when coating the foliage with any compound which forms a continuous layer or film.

I should advise caution in blending an arsenical compound with a strongly alkaline spray, which may be suspected of being capable of breaking down the insoluble and therefore safe condition of the arsenical combination, and result in serious "burning" to the leaves and young fruits.

Answer (by P. J. Carmody, Chief Orchard Supervisor, Victoria).—

With respect to resin wash and the trouble caused by its sticking the valves, etc., of the pump, the addition of 4 to 5 lbs. of soap to 80 gallons of wash makes it much less troublesome in this respect. Whale oil soap is best, but common soap may be used.

The mixing of arsenate of lead and resin wash is not practised in Victoria, but, in the opinion of the chemist for agriculture, this combination should not be harmful to the foliage.

An oil spray of summer strength, if applied when scale are hatching out, destroys large numbers; but spraying during the dormant season, with full strength washes has proved most effective.

Self boiled lime-sulphur has given good results when used against this pest in the summer.

Root Borer.—A subscriber at Hastings, Vic., writes as follows:—"It is heartbreaking to see all my well-grown Jonathan trees going off with root borer. What can be done to stop the trouble? I was told to spray with arsenate of lead early in the spring. Is that any good? The

Better Packing MEANS Better Prices

The Guider Grader

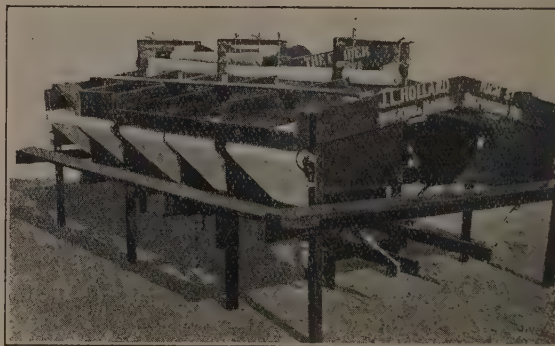
Is the Latest and Best

Purchasers write that the Machine has paid for itself in a single season

Sole Distributing Agents:

Dennys, Lascelles Ltd.

509 Collins Street, Melbourne



Note Spring Bottom and Canvas Bins.
Each holds two cases.

trees are just coming into bearing when this pest takes them off."

Answer (by C. French, Victorian Government Entomologist). — "In reply to your enquiry re root borer in Apple trees, we would recommend the use of zinc bands and borer traps on the trees, in conjunction with the arsenate of lead spray, which has proved very useful in reducing the pest."

NEW FRUIT VARIETIES.

Government Research Stations are Needed.

Speaking at the annual dinner of the Nurserymen and Seedsmen's Association of Victoria, Mr. J. M. Ward, Superintendent of Horticulture, stated that many valuable commercial varieties of fruits had been imported from England, America and other places. He urged that special attention be paid to the raising of local varieties suited to the Australian climate. He instanced three good locally raised Apple varieties, viz., the Tasma (Democrat), Crofton and Granny Smith. The Stewart seedling is also worthy of special mention in this connection.

It may be pointed out however, that these varieties were introduced by private enterprise and not through the Government Departments. It is in this sphere of horticultural research

work that the Government can render its best service to the community, and it is to be hoped that the various State Governments or the Federal Government through the Institute of Science and Industry, will undertake very definitely this important work of horticultural research, in order to carry out experiments in regard to (1) the raising of new varieties; (2) pest control, and (3) field tests with manuring, irrigation, pruning etc.

* * *

The mysterious Tomato wilt is still causing tremendous losses, and it is high time for the Governments to carry out exhaustive tests with the idea of combating the disease or the breeding of resistant strains. Other countries have established horticultural research stations, but in this respect Australia lags behind.

APPRECIATION.

Gumeracha, S.A.,
24th Sept., 1924.

"May I congratulate you upon the excellence of the publication; it does you credit, and is of immense value to the fruit industry of this Commonwealth."

J. B. RANDELL.

Right habits of living are always exchangeable at par for good health.

Wood Wool for Fruit Packing.

Australian orchardists and exporters will be interested in the excellent sample of wood wool which is being produced in Tasmania, and is now being offered for next season's trade. The samples of the product which have been submitted are of good colour, and the quality of the fibre in all other respects is quite equal to the imported product. This opinion has been confirmed by a number of the leading exporters who have also examined samples.

This Australian wood wool, which is being sold in bales, containing about 80 lbs., costs less than the imported article.

The sole selling agents for Victoria are:—Messrs. F. Cave & Co., Western Market, 42 William-street, Melbourne. Mr. Cave has been connected with the fruit trade in Victoria for a number of years. In order to cope with the expansion of the fruit selling side of their business, the firm have taken over the large fruit store previously occupied by Messrs. McClure, Valentine & Co. Pty. Ltd., 55-57 William-street, Melbourne. These premises are being suitably altered to meet the requirements of an open market. Stocks of the wood wool referred to above are available for inspection at this address.

"CARLTON" Lead is Codlin's doom Cleans the Orchard like a broom!

EVERY POUND OF "CARLTON" ARSENATE OF LEAD will go further and kill more grubs than a pound of any other paste, simply because the "CARLTON" is stronger and better-made than all others

- 1.—The "CARLTON," as you buy it, is guaranteed to contain 20% Arsenic Pentoxide (the poison). No other gives a guarantee anywhere near this.
- 2.—You obtain 8 or 10 lbs. more solids in every 100 lbs. of the "CARLTON." It contains only about 37% of moisture.
- 3.—It has exceptional suspension qualities, enabling the poison to remain evenly distributed right through the spray.
- 4.—Owing to its extreme fineness it spreads and sticks without the use of a spreader.

Order "CARLTON" and make sure of a CLEAN Crop

F. R. MELLOR, 440 Elizabeth St., Melbourne



Poultry Notes

By IAN P. HAMILTON

THE SECOND YEAR HEN.

THERE is no question," says the New South Wales Government Poultry Expert, "that an overwhelming number of poultry farmers will back up the idea that, everything considered, it pays them to keep hens to the end of their second year laying. It is, then, a matter of experience, and it is also borne out by the results of competitions. In fact, if the practice of keeping hens for two seasons' laying was not sound, there is scarcely a poultry farmer who would not be bankrupt. Again, if the second year's hens did not pay," he contends, "all the farms carrying half first year and half second year hens would be only partially stocked with profit-producing hens, and instead of a farmer living on 600 or 800 hens, his earning power would be but half that number. It is, of course, obvious, quite apart from figures that can be produced, that it does pay to keep second year hens. Misunderstanding of this question and of culling generally has been responsible for the reduction of the stock on some farms to a non-supporting point."

PRESERVING EGGS.

At this season of the year, when eggs are usually plentiful, many housewives take the opportunity of putting down supplies for use during the winter, when prices are high. The subject was recently referred to in a letter from a correspondent recently published in the "Observer" (Adelaide), in which a receipt is given for a home-made preservative which has been found to give splendid results. The correspondent says:—"I venture to send you a recipe of a home-made preservative, which I have used for some years, and have found quite as good as water-glass or any bought mixture. Added to this, it is very much cheaper. I find I can put down four kerosene tins of eggs—roughly 60 dozen—for less than it costs to put down one tin when using any of the preservatives on the market.

"Eggs which I put down 12 months

ago are still perfectly good, and I am able to sell my newlaid eggs until the price gets low. When I have filled one tin I always transfer the eggs to another tin, carefully examining them in order to reject any that may be cracked.

"In this way one uses first the eggs first put down. The following is the recipe:—10 quarts of water, 1 lb. common salt, 1 oz. saltpetre. Boil together a few minutes. Stand to cool, and when cool pour over $\frac{1}{2}$ lb. unslacked lime, and stir well. When the lime has settled it is ready for use. If desired, a board may be put for the eggs to rest on to prevent their resting on the lime, but I put mine straight in. Keep the tins covered, and fill up as the liquid evaporates."

Beekeeping

ROBBER BEES.

WHEN robber bees cluster on the crevices of hives, or on the screens of honey room windows, they often persist, and keep on trying till they get in somewhere. They can easily be driven away and kept off with kerosene.

An empty jam tin and a small paint brush is all you need. Wipe the kerosene out of the brush on the edge of the tin so that it will not run, and then paint the surface you wish to protect. If a hive is being robbed, paint a rainbow shape over the entrance, and on the alighting board after contracting the entrance. Bees belonging to the hive fly past it; robbers are repelled. Don't get kerosene on your hands or clothes; if you do, you'll know the reason why.

MARKETING HONEY.

THE nature of the beekeepers' occupation and his daily association with a regime unparalleled in nature for its perfect and delicate order, should make him particularly sensible of the importance of what are sometimes dismissed as "small things." One of these is the appearance of his honey containers.

It is essential that the apiarist should study the outside appearance of his containers when marketing honey. Many use benzine tins, and

these are satisfactory only if they are carefully selected, properly cleaned with hot water, and a small quantity of carbonate of soda, and then rinsed with cold water. Only the best and brightest tins should be used, and it is imperative, of course, that not the slightest odour of benzine should be left in the tin.

When sending honey a distance by rail, it is advisable to put the tins in crates. Where it is desired to consign uncrated, then personal attention should be given to the loading of the truck, so that the tins may be packed carefully, and in such a manner that no other produce is dumped roughly on top. Marketing in containers of poor appearance reduces both profits and sales.

Pig Rearing

The English Market.

DISCUSSING the probable effect of the rise in the price of wheat, upon the pig market, "Hickory," of the "Australasian," says that the rise is likely to have a wider effect than its mere influence on the returns of the wheat farmer. Dear wheat, he points out, means dear bran and pollard. "Every bag of wheat sent to England provides by-products which are largely bought up by the Danes, and come back to England in the shape of butter and pork."

During the war, owing to the difficulty experienced in obtaining fodder, the Danes were compelled to kill off their live stock, and the number of pigs particularly showed a heavy decrease at the end of the war. Since then the importation of foders has again increased with a correspondingly heavy increase in the number of pigs.

The amount of bacon sold to Great Britain in 1923 was about 174,000,000 kilos, compared with 126,000,000 in 1918. Stock of all kinds are heavily hand-fed in Denmark, the country being too poor to graze them profitably. If the price of wheat keeps up we will be in a much better position to compete with Denmark, and our position would be strengthened still more if a greater proportion of flour than of wheat was sent overseas.

We understand the quality of butter demanded by the best trade in England, but little effort has been made to study the quality of pork, whether for the fresh meat trade or for bacon. Denmark, on the other hand, has studied English tastes with great care.

For instance, they use only two breeds—the native Landrace sow and the large white boar. If we wish to establish an export trade, and it is necessary to do so if we are to stabilise pig-breeding, then we must supply just what they require.

The demand for the fat type of pig has disappeared in England, as it has

Why Karswood (harmless) Spice will be of Exceptional Benefit to Your Birds



Before Karswood Poultry Spice (guaranteed harmless) came on the scene, the word "Spice" to scientific breeders and Poultry keepers was like a red rag to a bull. And no wonder!

Up to that time, the word "Spice" had been synonymous with concoctions of Gentian, Chillies, Cayenne, Mustard, Ginger, and so forth. Nowadays, no one needs to be reminded that birds given these stimulants for any length of time become absolutely useless—fit only for the boiling pot.

But Karswood has given a new character to that word "Spice." It is no longer the bug bear of poultry men who know, and looking through the many, many testimonials for Karswood, received from Australia, England, India, Belgium, Canada, and other countries, one is almost driven to the conclusion that Karswood Poultry Spice is as valuable an aid to successful poultry keeping as are fresh air and water. Everybody who uses Karswood—and there are considerably more than 500,000 (half a million) daily users—has the same story to tell, and a general consensus of opinion is that Karswood Poultry Spice "puts the profit into poultry keeping."

When such men as Mr. Will Hooley, C. A. House, C. McDonnell, and dozens of others prominent in the industry will take the trouble to recommend a product of this nature, voluntarily, you may be sure that it is worth while recommending and absolutely harmless.

Never was there a better time to start using it than right NOW—TODAY! Conditions in the industry at present seem to emphasise the importance of making next Winter a period of heavy profits in order to recoup any losses sustained at this time of the year, when an unusually low level of prices is the general rule.

Start feeding Karswood Now—at the small cost of a half-penny a day for every twelve birds. Within a fortnight you will be delighted with

HERE IS PART OF THE REPORT OF MR. C. A. HOUSE.

"After a long series of tests specially conducted by Mr. Will Hooley, F.R.S., the Chief Expert of the "Poultry World" (of which I am the Editor), it was found that not in one single instance could any ill-effects be traced to the use of Karswood Poultry Spice, but that, on the contrary, nothing but good had resulted, the whole of the birds being in better condition than at the beginning of the test. This was shown, not only by the activity and virility of the birds, but also by the perfectly normal and natural condition of the internal organs of the bodies of a number of the birds which were specially killed for the purposes of the test."

the condition and plumage of your birds, for Karswood (in the words of C. A. House), "contains one of the finest tonics known to mankind."

Now, such a tribute from a man as highly respected implies one thing very strongly—Karswood puts life

NOTE THE ECONOMY.

1/- packet supplies 20 hens 16 days
2/- packet supplies 20 hens 32 days
13/- tin (7lb.), supplies 140 hens 32 days
14 lb. tins, 25/-; 28 lb. tins, 48/-

and vigorous health into the stock—and that condition is a fundamental of successful poultry keeping, as every man engaged in the calling knows.

For that one reason alone you should use Karswood Poultry Spice: but as the year progresses and the seasons change, you will find that this steady use of Karswood brings other excellent results. For one thing—a quick and thorough moult and a speedy return to the serious business of egg-production. For another—the highest possible percentage of hatches, few dead-in-shells—low mortality in chicks because of healthy breeding stock.

As proved by post-mortem examinations conducted by Mr. Will Hooley on the bodies of birds fed on Karswood every day for two consecutive years, Karswood Poultry Spice is not only absolutely harmless, but it does wonderful things indeed for the

birds. After a fortnight or three weeks, they are a delight to look at—tight in feather, happy, keen and eager for their food and from then onwards, with ordinary care and attention, the poultry keepers trouble begin to diminish, and his pleasure begins.

Don't accept our word for all this—make a test on half a dozen birds. Get a 1/- packet of Karswood

Poultry Spice from your local Dealer, and prove it to your own satisfaction.

Agents:

Victoria and Tas.: Henry Berry and Co., Melbourne.
N.S.W.: Coastal Farmers' Co-op. Scty., Sydney.
South Australia: S. C. Eyles & Co., Adelaide.
Q'land: Farmers' Co-op. Dist. Co., Brisbane.
West Australia: Westralian Farmers' Ltd., Perth.

KARSWOOD Poultry Spice

Use it the Whole Year Round

done in Australia. The "Pig Breeders' Annual" states that the ideal bacon pig should be as follows:—Back long and level, with well-sprung ribs, fat about 1½ inches thick; sides level and moderately deep; hams broad, wide and deep to hock, no depression at root of tail; belly thick, with straight underline; shoulders light, aligned with forelegs below and with sides laterally, free from wrinkles and coarseness; flank aligned with sides, thick, and handle firm; head, neck, and jowl as light as possible, with no rolls of coarse fat; flesh firm without excessive fat; skin thin, and free from coarseness and wrinkles; hair fine and silky.

To produce a pig of this kind, which should be marketed when the dead weight will reach over 160 lbs.; the English opinion seems to be that a large white boar should be used on a middle white, large black, or Berkshire sow.

OIL WRAPS PROVE THEIR WORTH.

Damage by "Scald" Reduced.

The use of oiled paper in wrapping Apples has increased rapidly in the Hood River section in the past two years, says the "Glacier," U.S.A. It is estimated that at least a third of the commercial crop of the North-West was wrapped the past season. Wrapping is practised extensively by several large associations and concerns which handle thousands of carloads of Apples. Some cash buyers and growers' associations have packed Apples of all grades and all varieties in oiled wraps.

By far the most important consideration leading to its increased use is that oiled paper has reduced, and in most cases, entirely prevented the damage by "scald" in common or cold

storage and in transit. Prevention of the serious loss from this trouble and the resultant advantages in marketing the crop led to shipments of many carloads of oiled paper wraps to the North-West last season. The additional cost over ordinary wrappers is only about one penny per box.

Romes, Staymans, Grimes, Newtowns and Winesaps are all subject to severe scald, and these varieties were wrapped in oiled paper by most operators. While such varieties as Jonathans and Delicious do not usually "scald" badly, many of these also were put up in oiled wraps. In fact, it is the prediction of many shippers that all wrapped Apples moving from the North-West will be in oiled paper within another year. In general, fancy and C grade Apples of red varieties tend to scald more than extra fancy, because these two lower grades are not so highly coloured.

"HARVEY" IMPLEMENTS for Orchard, Vineyard and Farm Cultivation

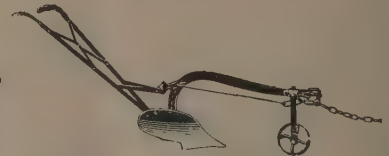
Tractor Ploughs, Discs and Cultivators to suit every Tractor



"HARVEY" ORCHARD PLOW.



NO. 10 S.F. GENERAL PURPOSE PLOW.
High Steel, Goose-neck Beam, Fixed Handles.



"HARVEY" GOOSE-NECK S.F. PLOW.
With shifting or fixed handles. Made in 7, 8, 9 and 10 sizes.



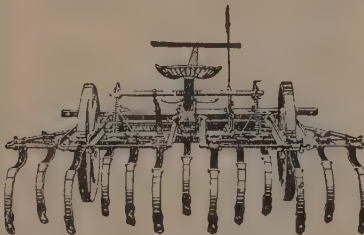
"HARVEY" SPRING TOOTH CITRUS & ORCHARD CULTIVATOR.



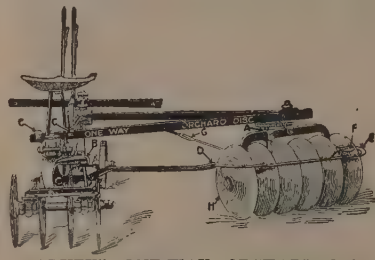
LIGHT 2-FURROW ORCHARD DISC PLOW.



"HARVEY" 2-FURROW SHIFTING ORCHARD PLOW.



SPRING TOOTH RIDING CULTIVATOR.



"HARVEY" ONE-WAY ORCHARD DISC CULTIVATOR.



4-FURROW POWER LIFT TRACTOR PLOW.

Office and Works:

Write for Illustrated Catalogue

D. HARVEY, Box Hill, Melbourne, Victoria

Show Room: F. R. Mellor, 440 Elizabeth St., Melbourne

Some associations had enough oiled paper to wrap every box of Apples shipped, and they are advertising the fact that none but such wraps were used in packing their particular brand. Many packing houses stamp the box with the words "oiled wrap," and others have these words printed on the individual papers. Eastern buyers are beginning to specify oil-wrapped Apples in their orders, and shippers are quoting this special pack. In May, 1923, oil-wrapper Apples brought 4/- per box premium on the New York auction over similar Apples in ordinary wrappers.

THE AVOCADO PEAR.

The Avocado Pear, which was originally called by the Americans "Alligator Pear" is as yet little known in some countries. The tree grows to a height of from 15 to 20 ft., and came originally from Mexico. It is found in tropical America, South Africa, in the Indies, and recently in California. It has been acclimatised in Algeria and even on the Provencal coast.

The fruits assume two principal shapes: Pear-shaped and spherical. The former are drupes containing a thin and strong stone, which the seed either does, or does not occupy. According to the varieties, the fruits, on ripening, are purple, and of the size of a very large Pear among those of this shape, or else of a green colour, and of the size of an Orange among rounded fruits.

Their flesh, rather strong, very fine, rich, sometimes melting, has been compared to vegetable butter, and has a peculiar flavour resembling that of the hazel-nut. Their ripening varies according to the countries and the kinds; it takes place from August to November in the Antilles, from July to August in Guinea, from August to September in India, from October to December in Guiana, and from August to December in California.

The Avocado trees begin to bear towards the fourth or sixth year of their planting. At Hawaii, 500 fruits, as an average, and 800 to 1,000 as a record are gathered yearly, while in Los Angeles as many as 5,000 small fruits have been harvested. The price fixed in the U.S. in 1915 for a dozen fine fruits varied from 16/- to 32/-; this will give an idea of the value of an orchard of Avocado trees of 10 to 15 acres, planted in the proportion of 80 to 100 trees to the acre. It is one of the fruits for which there is the greatest demand in warm countries where it is consumed in several ways, but most often as dessert.

It's good to have money, and the things that money can buy, but it's good, too, to check up once in a while and make sure you haven't lost the things that money can't buy.—George Horace Lorimer.

LEMONS AID BEAUTY.

This is Something the Ladies will Read.

LEMON JUICE is an invaluable toilet requisite, and the following are a few hints which will be found most effective in this connection.

In order to keep fair hair bright and glossy, a few drops of Lemon juice should be added to the last rinsing water after the hair has been shampooed.

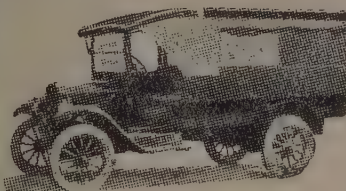
Premature wrinkles may be arrested by the application of Lemon juice. The Lemon must be quite fresh and should be gently rubbed across the line which has commenced to form. Lemon juice is a very effective bleach for the skin, and if applications are made two or three times a week, all

discolorations will be removed. When used for this purpose it should be diluted with half its quantity of peroxide of hydrogen (20 vol.), applied to the discolored patches and allowed to dry on them.

Lemons are also useful for treating a troublesome corn. Place a slice of Lemon over the corn and bind with a piece of rag, for three or four nights in succession.

Lemon juice is a most effective and simple complexion beautifier. It can be applied either pure or diluted with rosewater. If the skin is coarse, rub a little pure fresh Lemon juice into it every night, and leave on the skin till morning. It should then be washed off and a little elder-flower water dabbed over the face.

The woman who feels that she is putting on weight too rapidly should take the juice of a Lemon in a little water (without sugar) every morning instead of the usual cup of tea.



THREE GOOD REASONS

BUY CHEVROLET TRUCKS, because the worth of a motor truck depends on the ability of its motor. The Chevrolet valve-in-head motor provides maximum power with minimum fuel expenditure.

BUY CHEVROLET TRUCKS because Chevrolet trucks are built well. They embody the best materials and workmanship. They give long and uninterrupted service. Their surplus strength overcomes the handicap of bad roads. They are "mud-tested."

BUY CHEVROLET TRUCKS because Chevrolet trucks are easy to drive. The controls are conveniently arranged and easy to operate. The equipment includes all needed devices for comfort and safety.

1-Ton Truck Chassis £235
12-Cwt. "Light Delivery" Chassis £195

Demonstrations arranged at any time by
the nearest "Chevrolet" agent or

S.A. Cheney Motors Pty Ltd
22 FLINDERS ST. MELBOURNE.
Sole Agents for
**VICTORIA AND
RIVERINA**

SUBSCRIBERS' PAYMENTS RECEIVED.

The following are the subscriptions received from September 20th to October 20th, 1924. The month quoted in parenthesis indicates to what date the subscription is paid. These are exclusive of the subscribers who have paid to local agents or to our offices in the various States:—

J. Aggett (Dec., '25), J. H. Agnew (Aug., '25), A. Andreski (Nov., '24), G. E. Archer (July, '25), H. C. Austin (Nov., '24), John Baldwin (Aug., '25), S. Beavis (Aug., '25), W. B. Beal (July, '25), B. J. Bennett (July, '25), A. Birnie (Jan., '25), A. T. Booth (May, '25), E. G. Burley (Dec., '24), W. Burrows (June '25), W. T. Charley (Aug., '25), W. J. C. Collins (July, '25), A. W. Cornish (Aug., '25), Chas. Cooper (Oct., '25), G. Costin (July, '25), J. W. Cox (July, '25), Daily Telegraph (Aug., '25), J. Davidson (Dec., '24), M. Dillon (Dec., '25), J. Donaldson (Aug., '25), T. Dobson & Sons (Dec., '24), Mrs. L. Dreyer (July, '25), J. S. Eales (Mar., '25), A. J. Eastley (July, '25), W. R. Elvery (Sept., '24), E. A. Everett (Aug., '25), R. C. Fankhauser (Dec., '25), W. E. Feltham (July, '26), W. M. Gibson (June, '25), H. Gill, Jr., (Jan., '25), F. Gottschutzke (July, '25), J. M. Goodenough (Mar., '25), W. Goodman (Sept., '24), S. H. Green (Aug., '25), W. H. Groat (July, '25), Halliday & Sons (Sept., '24), W. A. Hawse (Dec., '25), W. Herath (Oct., '24), T. H. Houfe (Aug., '25), H. H. Howell (Dec., '24), E. Ivory, Jr. (Dec., '24), L. H. Iredale (Dec., '24), S. B. Jameson (Aug., '25), F. J. Jamieson (Sept., '25), J. Johnston (Dec., '24), C. Johanson (Dec., '25), F. C. Johnson (July, '25), P. V. Kerr (Aug., '25), H. W. Kirke (June, '25), A. Lansdowne & Son (Mar., '25), J. Lindfield (Sept., '25), H. R. Little (Aug., '25), L. E. Lock (Dec., '24), S. Lowe (Dec., '24), C. W. Mally (Mar., '25), H. McCarthy (Aug., '25), W. McGregor (June, '25), J. McMullen (Oct., '24), Newton & Du Toit (May, '25), G. Offley (Nov., '25), J. O'Connell (Sept., '24), Palmdale Co. (Dec., '24), J. A. Parkes (Oct., '24),

R. W. Peacock (July, '25), E. A. Peers (Dec., '24), A. Peacock, Jr. (Sept., '25), A. Philp (Dec., '24), Pickford's (Colonial) Ltd. (Aug., '25), V. A. Pool (Dec., '24), L. H. G. Polchet (Oct., '25), Producers Markets Ltd. (June '25), J. B. Randell (June '25), Realty Development Co. (Oct., '24), E. Rees (July, '25), T. J. Reaney (Oct., '24), H. Renk (Aug., '25), Rhodes Fruit Farms Ltd. (Oct., '25), H. Rimom (Oct., '24), W. E. Sargood (Aug., '25), J. J. Scarce (July, '25), A. Schulze (Oct., '24), Shepparton Fruit Pres. Co. (Aug., '25), A. Sharp (Jan., '25), J. V. Smailes (Jan., '25), D. P. Stanton (Nov., '24), W. C. Thomas & Sons Pty. Ltd. (Aug., '25), A. S. Thomson (Mar., '25), Union S.S. Co. of N.Z. (Aug., '25), A. C. Van (Sept., '25), H. M. Voss (Jan., '25), J. E. Williams (July, '26), H. Wilkinson (June, '25), J. A. Williams (Sept., '25), Winkelmänn Bros. (Dec., '24), G. Wood Son & Co. (July, '25), R. H. Woodland (Jan., '25), W. Young (Oct., '25), E. Zimmerman (Dec., '24).

The use of oiled wrappers in commercial quantities in U.S.A., has reduced, and in some instances entirely removed, damage by "scald" in cold stored Apples. In the Pacific North-West of U.S.A. Jonathan does not "scald" badly in cold store.

"WHAT'S WRONG WITH YOUR STOMACH?"

No man or woman should have Indigestion or suffer from constipation or liver troubles. If the food you eat disagrees with you, all that you require is certain herbal juices to stimulate the digestive process. The ancient Egyptians understood this when they ate a small herbal decoction after every meal—and they were gross feeders! A.M.S. has been scientifically compounded from herbs to help the stomach and liver do their work effectively. Try a little every day, and you will soon abandon medicine altogether as thousands of people have already done. All chemists 3/—, or by post 3/6 a bottle from T. A. Dickson, Chemist, Geelong, Vic.

THINNING PEACHES.

From an unthinned Peach tree in an experimental block, 1,870 fruits were harvested—only 18 fruits sized 2½ in. in diameter and 217 were less than 1½ in. diameter. From a similar tree 937 fruits were removed. At harvest the latter produced only 8 Peaches of 1½ in. size, 181 were 2½ in.; the total fruits picked were 803. Nature had her way in one case, and matured nearly 2,000 worthless Peaches. In the other case, nature was circumvented, and 803 Peaches matured, mostly fancy grade.—C. G. Woodbury, in "California Fruit News."



SPRAY MATERIALS

Of QUALITY and PROVED EFFICIENCY, including Arsenate of Lead in paste and powder forms.

ATOMIC SULPHUR

Recommended by the Department of Agriculture, N.S.W., for the control of

Powdery Mildew on Apples

and PROVED IN VICTORIA to be capable of controlling

Brown Rot on Peaches

And Other Stone Fruits.

ATOMIC SULPHUR is the greatest boon ever offered to Fruitgrowers.

Agents wanted throughout Victoria.

SOLE AGENTS FOR VICTORIA:

Buckeye Harvester Co.

44 to 52 Francis Street,
MELBOURNE (Vic.).

Opposite Spencer Street Railway Station.

Wood Wool for Fruit Packing

Made in Australia by Australians for Australian Orchardists.
Support a Local Industry and secure a Wood Wool

EQUAL TO THE BEST IMPORTED, at a CHEAPER PRICE

This product is good color and quality
and does not taint the fruit in any way.

Packed in Bales containing about 80 lbs.
Secure your supplies early to avoid disappointment.

Prices on application to the Sole Agents for Victoria:

POSTAL ADDRESS—
42 William St., Melbourne

F. CAVE & CO.

Wholesale Fruit Merchants
WESTERN MARKET

AN EXTENSIVE ORCHARD.**American Packing Methods.****Dusting Instead of Spraying.****Motor Traction.****Progress at "Elinora," Wheeler's Hill, Victoria.**

SITUATED about 16 miles east from Melbourne in the centre of a district which is famed throughout the world for its fruit, is the well known "Elinora" Orchard owned by Mr. Sydney Stott, of 91 William Street, Melbourne. The orchard has been planted on the slope of Wheeler's Hill, six miles from the Oakleigh Railway Station. This district lies between the Lilydale Railway and the main trunk line to Gippsland, and includes such well known adjacent districts as Mt. Waverley, Mulgrave, E. Burwood and Scoresby, districts which have produced fruit of sufficiently high grade quality as to win favorable comment on distant Australian markets as well as in the markets of the old world.

Mr. Samson, the celebrated Apple packer, who was engaged in America by Mr. Stott, had his headquarters close by, and his packing methods have been adopted throughout Australia.

The "Elinora" orchard contains over 120 acres of Apples and Pears. The varieties include 1,200 trees of Gravenstein Apples (Early), followed by 10,000 trees of intermediate varieties including Jonathan, Delicious and others, and ending with 1,200 trees of Granny Smiths, Yates and other late varieties, ensuring continuous pickings throughout the season.

The soil is a sandy loam, eminently suitable for orcharding as the quality of the fruit demonstrates. The soil is also suitable for market gardening, an interesting example of which is to be seen in the fact that on the opposite side of the road is one of the largest market gardens in Australia. Mr. Stott owns 200 acres adjoining the orchard, and this is available for future plantings if desired.

There are a few Cox's Orange Pippin trees, the fruit of which was sold from 30/- to 35/- per case in London last season.

A Hong Kong buyer recently wrote stating that the 600 cases of Apples sent there were well suited to that market, and asked for more. Brisbane agents have written speaking highly of the Granny Smiths, and other varieties of Apples sent to that market. Purchasers in Macassar, Java and Singapore have also expressed appreciation.

The trees on the "Elinora" orchard are young, mostly ten years planted, and are in good condition. The orchard has been cultivated and fertilised continuously. Pests have never been allowed to spread, and by regular attention to spraying, the fruit is generally clean and free from blemish. In Apples, the leading varieties are Jonathan, Delicious, Rome Beauty, Five Crown, Winesap, King David, Stewart's and Dunn's (Munroe's). In Pears, the leading varieties are Packham's Triumph, W.B.C., Winter Nelis, Howell, Beurre Bosc, Corona etc.

Cold storage has been arranged for at one of the railway stations, and fruit will be put on trucks in the siding at the cool stores for rail direct to Sydney and Brisbane, as well as to the ship's side for export to London.

From a scenic standpoint the position of the "Elinora" orchard is unique. The outlook is over Port Phillip Bay from the top of the hill in one direction, and over a beautiful valley extending to the Dandenong and the Plenty ranges in other directions.

There is a well developed hedge of Lambertiana cypress 15 to 20ft. high, and a quarter of a mile long. This is not only effective as a windbreak, but adds beauty to the surroundings.

The "Elinora" orchard is situated in what might be termed an outer suburb of Melbourne, being only 16 miles from the city retail markets, and connected by good roads. A motor truck is used for local delivery, whilst on the property a tractor and motor pumps are in regular use.

Experiments with dusting instead of spraying have been highly successful.

An instance of the increasing value of land in the locality is seen in the fact that Mr. Howard Smith recently purchased 100 acres opposite the "Elinora" orchard. Further, the Country Roads Board has just purchased land for road deviation purposes in the immediate vicinity. Capt. Chirnside's pure bred cattle farm is also close by.

Electric trains or trams are expected in the near future; an inspection has been made by Government surveyors, regarding routes for a projected suburban railway. The Shire Council is arranging for electric light and power throughout the Shire; the towers of the Electricity Commission pass through Mr. Stott's property.

The property has been well cared for in the matter of cultivation and general attention. It is wire netted throughout, and there are underground tiled drains over large areas. A reservoir and dams on the property ensure ample water supply. The orchard is bounded on the east by the ever-flowing Dandenong Creek.

There are several well built and tastily designed cottages on the holding, these being built of Tasmanian hardwood with tiled roofs. There is also ample stabling accommodation, packing shed and facilities which go to complete the modern orchard in full working.

The telephone is directly connected with the central and suburban exchanges. Fruiterers can thus ring up their orders for fruit which can be sent direct by motor truck to shops in the city and suburbs.

In an interview with the owner, Mr. Sydney Stott, it was learnt that owing to city interests taking up a considerable portion of his time, he was favorably inclined to subdivide, or to dispose of a large part of the property to a syndicate. On the other hand, Mr. Stott is open to make arrangements with a working partner. It will be seen that, whether from the commercial aspect of supplying local or overseas markets with choice varieties, or from a residential standpoint, the "Elinora" orchards, (being close to the metropolis), have very much to commend them.

STONE FRUITS CITRUS TREES and QUALITY ROSES

BEFORE PURCHASING

send for Lasscock's Catalogue and prices. These South Australian grown trees are unsurpassed for hardiness, healthiness, and vigor. They will jump from the start and bring profit to the grower. Our stocks are excellent and prices right. Special attention is given to packing.

LASSCOCK'S NURSERIES

Henley Beach Road,
LOCKLEYS, STH. AUSTRALIA

A Good Start means Everything!

The Fruit Trade

Market Reports and News Items.

**REPRESENTATIVE FIRMS, FRUIT
MERCHANTS, AGENTS, EXPORTERS,**
Advertising in this Journal.

NEW SOUTH WALES.

Sydney.

Chilton, F., City Fruit Markets.
Louey Pang & Samuel Wong Ltd.,
Thomas St., Haymarket.
Rogers, F. H. G., Fruit Exchange.
Rule & Beavis, Fruit Exchange.

VICTORIA.

Melbourne.

Coastal Farmers' Co-op. Society, West-
ern Market.
Davis, J., Western Market.
Lister, G., Western Market.
Mills & Co., J. B., 9 Queen St. (representing Nothard, Lowe & Wills Ltd., London).
Mills, A., & Sons, Western Markets.
McClure, Valentine & Co. Pty. Ltd.,
86-8 King St.
Mumford, J. G., 449 Flinders Lane.
Pang & Co. Ltd., H. L., Little Bourke Street.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tim Young & Co., Western Market.
Vear, F. W., 49 William Street.
Wade & Co., H. M., 471 Flinders Lane.
Woolf, G., Western Market.

QUEENSLAND.

Brisbane.

Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
W. J. Whitten & Co., Fruit Exchange.

WESTERN AUSTRALIA.

Perth.

Wills & Co. Ltd., G., Exporters.

SOUTH AUSTRALIA.

Adelaide.

Wills & Co. Ltd., G. Exporters.

TASMANIA.

Hobart.

Jones & Co. Ltd., H., Fruit Exporters.
Peacock & Co., W. D., Fruit Exporters,
and at London.

Launceston.

Bender & Co., 110 Elizabeth St.

NEW ZEALAND.

Auckland.

Radley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.

Dunedin.

Co-operative Fruitgrowers' of Otago
Ltd.
Paterson, Thos., & Co., Vogel Street.

JAVA.

McCorkill, Wm., Sourabaya.

ENGLAND.

London.

Jacobs, E., & Sons, Covent Garden
Joel, R., & Sons, 16, 17, 20 Russell St.,
Covent Garden.
Margeton & Co. Ltd., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Nothard, Lowe & Wills Ltd., Tooley St.
Ridley, Houlding & Co., Covent Gar-
den.
Swann & Co., 3 Salter's Hall Court.

Hull.

White & Son Ltd.

Liverpool.

Adam, James, Son & Co., 1 Temple
Court.

Manchester.

North of England Fruit Brokers Ltd.,
represented by N. V. Wade, 8 Bridge
St., Sydney.

GERMANY.

Hamburg.

Stier, Aug., Fruchthof, Reps. J. B. Mills
& Co., 9 Queen St., Melbourne.

British and Australasian Market Reports.

Great Britain.

London (12/9/24).

Mr. G. Da Costa, Covent Garden,
reports under date 12/9/24, as fol-
lows:—

English Apples, 2/- to 7/- $\frac{1}{2}$ bushel;
Grapes, 1/- to 5/- per lb.; Plums, 8/-
to 12/- $\frac{1}{2}$ bushel; South African
Oranges, Navels, 18/- to 24/- per box;
Seedlings, 16/- to 23/-; Grape Fruit,
20/- to 22/-; Pines, 10/- to 12/-;
American Apples, Wealthy, 26/- to
38/- per barrel; others, 24/- to 34/-;
Californian Gravenstein, 13/- to 17/-
per box; French pears, 3/- to 8/- per
crate; Italian Lemons, best, 18/- to
30/- large box; others, 12/- to 18/-;
Spanish Grapes, 14/- to 25/- per
barrel.

London (13/9/24).

The following are the prices ruling
as published in the "Fruit, Flower and
Vegetable Trades' Journal," 13/9/24—
Apples, English, 3/- to 9/- per sieve;
Bananas, Fyffe, 11/- to 15/- crate;
Hoya, 16/- to 24/-; Grapes, English,
Alicante, 1/3 to 2/- per lb.; Muscat,
best, 4/- to 6/-; medium, 1/6 to 2/6;
Colmar, 1/6 to 3/-; Almeria, 15/- to
18/- per barrel; Lemons, Messina's,
300's, 20/- to 25/- per case; Murcia,
16/- to 20/-; Oranges, South African,
20/- to 24/-; Peaches, English, best,
9/- to 18/- per doz.; Pears, English,
Williams', 3/- to 7/- per $\frac{1}{2}$ sieve;
others, 1/6 to 7/-.

Liverpool (10/9/24).

Messrs. J. C. Houghton & Co. re-
port as follows:— American Apples:
Most of the Bonums were fairly bright,
but on the small side. An attractive
lot of King David fetched good prices,
as also a fine parcel of Wealthy.
Prices were for Virginian Wealthy,
best, 35/- to 38/-; others, 24/6 to
28/-; Bonum, 27/- to 33/-; York, 25/-
to 32/-; King David, best, 35/-; others,
15/- to 23/6; American Wealthy, 22/-
to 25/6; Gravenstein, 26/- to 32/-;
Blush, 25/- to 29/6 per barrel. Pears
—Clairgeau, 8/3 per box. Californian
Gravensteins, 16/3 to 17/3 per box.
Oranges, South African Navels, 18/-
to 26/6; Seedling, 13/- to 23/- per box.
Grapes, Almeria, 12/- to 24/6 per
barrel.

New South Wales.

Sydney (23/10/24).

Mr. F. Chilton, City Fruit Markets,
reports under date 23/8/24, as fol-
lows:—

Queensland Fruits.—Bananas, 16/-
to 30/- per case; Pines, smooth, 14/-

to 18/-; Tomatoes, 8/- to 18/- per
half case. New South Wales Fruits.—
Bananas, Tweed River, 16/- to 30/-
per case; Lemons, 4/- to 10/- per
bushel case; Oranges, common, 4/- to
10/-; Valencia, 10/- to 13/-; Navels,
15/- to 22/-; Mandarins, Emperor, 5/-
to 18/-; Apples, Granny Smith, 14/-
to 24/-; Passions, 3/- to 15/- per half
case; Loquats, 3/- to 11/- Victorian
Fruits.—Apples, Jonathan, 11/- to
17/- per bushel case; Yates, 17/- to
20/-; Pears, Jos., 14/- to 18/-; W.N.,
12/- to 17/-; B.P., 9/- to 15/- Tas-
manian Fruits.—Apples, Jonathan,
10/- to 18/- per bushel case; S.T.P.,
10/- to 16/-; Dem., 16/- to 20/-;
French Crabs, 12/- to 18/-; Crofton,
16/- to 20/- South Australian Fruits.
—Apples, Cleo, 12/- to 17/- per bushel
case; R.B., 12/- to 18/-; S.P., 10/- to
15/-.

Fair supplies of Oranges, both com-
mon and Valencia varieties, continue
to arrive, and prices have not altered
materially during the past week. Lemons
are in slightly better demand,
and prices have improved a little. Man-
darins of first-class quality are
almost unprocurable, the bulk of this
fruit now coming forward being un-
satisfactory. Apples are very scarce
and prices are moving upward. Pears
are in fair supply for this late period
of the year, but quality in many in-
stances is not reliable. Pines, Pas-
sions and Loquats are all scarce, and
prices advancing. Cherries have ap-
peared on the market this week, and
in a few days are likely to be fairly
plentiful.

Victoria.

Melbourne (29/10/24).

The following are the prices ruling
at the Western Market:—Apples,
Jonathan, 12/- to 15/- per case; cook-
ing, 12/- to 14/-; Pineapples: Queens,
17/- to 20/-; Bananas, 26/- to 28/-;
seconds, 15/- to 20/-; Navel Oranges,
16/- to 20/-; Valencias, 14/- to 18/-;
common Oranges, 10/- to 14/-;
Lemons, 8/- to 10/-; Passion-fruit,
25/- to 35/-; Tomatoes, Queensland,
10/- to 15/- per half case.

Citrus Report.

The V.C.C.A. Market Representa-
tive reports as follows for the week
ending 18th October:—

There was a spirited demand for the
choicest varieties. Practically all of
these were cleared. Rough skinned
Oranges and consignments showing
waste were hard to dispose of. Man-
darins are almost finished. Lemons
are easier.

Oranges.—Navels, Special, 20/-;
choice, 15/- to 18/-; standard, 12/- to
15/-; Valencias, 14/- to 16/-; Sydney
commons, 10/- to 13/- Mandarins.—
Special, 20/-; choice, 14/- to 18/-.
Lemons, 9/- to 12/-.

SUCCESSFUL ORANGE SHIP- MENTS.

Details regarding the export of cit-
rus fruit this season are supplied as
follows by Mr. Esmond Russell, fruit

exporter, of 60 Queen-street, Melbourne.

"I am in receipt of cable advice for the shipment by two boats. The first was the 'Moreton Bay,' which arrived with all her fruit in rather wasty condition, due probably to the fact that she arrived in London just at the height of the Covent Garden porters' strike, and as a result she was unable to discharge her cargo in London, and the fruit was carried on to Hull and subsequently had to be carried back to London, the hatches, I understand, having been opened in the meantime for the discharging of cargo at the northern ports, consequently the fruit on this boat sold at the very low price of 10/- to 11/- per bushel case.

"The 'Jervis Bay,' approximately a month later, landed her fruit in excellent condition, and I have to-day received a cable advice from Messrs. Geo. Monro Ltd., London, stating that the gross average was 25/- to 24/6. The shippers were Messrs. B. P. Ventura and H. Drum.

"All of this fruit was shipped in the ordinary hardwood (dump) Apple export case, and as a result costs to the grower are very considerably less than if the fruit had been shipped in the Orange export case, and this return will probably give the grower approximately 16/- per case or a little over, clear of all expenses.

"I think you will agree that such a return would be highly profitable, and should encourage shipments."

PEDIGREE FRUIT TREES

CITRUS

APPLES, APRICOTS, PRUNES,
PEARS, PLUMS, PEACHES, etc.

QUALITY PRIME

Correspondence Invited
Orders Being Booked
Send for Our Catalogue
The Most Up-to-date
in Australia

F. Ferguson & Son,
Australian Nurseries,
Hurstville, N.S.W.

South Australia.

Adelaide (25/10/24).

Apples, eating, 12/- to 14/- per case; cooking, 10/- to 12/-; Bananas, Fiji, 32/- to 34/-; Lemons, 7/- to 9/-; Loquats, 17/-; Oranges, common, 10/-; Blood, 11/-; Navel, 14/- case; Poorman, 8/-; Passion-fruit, 38/- to 40/-; Pears, eating, 10/- to 12/-; cooking, 8/- to 10/-; Pineapples, 23/- to 25/-; Strawberries, 1/3 per lb.

Queensland.

Brisbane (23/10/24).

Oranges, Valencia, 12/- to 14/- a bushel case; Lemons, 5/6 to 6/- quarter case; Passion-fruit, 8/- to 14/- ½ bushel case; Pineapples, rough leaf, 12/- to 15/-; smooth leaf, 9/- to 12/-; Loose Pines, 8/- to 9/-; Papaws, 2/- to 3/-; Cape Gooseberries, 8d. quart; Strawberries, 7/- dozen; Mongoes, 7/- to 10/-.

Tasmania.

Hobart (24/10/24).

Apples, delicious, No. 1, 20/6; No. 2, 14/9; others, 8/9; S.T.P., No. 1, 15/-; No. 2, 9/3 to 11/6; others, 6/- to 9/-; N.Y.P., No. 1, 15/6; F.C., 7/3 to 8/6; Pears, Broomparks, 3/6.

West Australia.

Perth (18/10/24).

Apples, Yates, special, 18/- to 21/6 per bushel case; medium, 15/- to 16/6; small, to 11/-; Doherty, prime, 15/- to 17/-; others, to 12/6; Granny Smiths, best, 15/- to 17/9; others, to 13/-; Dunns, prime, 13/- to 16/6; small, to 11/-; Stone Pippins, to 13/3; Rokewoods, to 13/6; Democrats, to 16/-; Statesman, to 11/6; Navel Oranges, bushel, special, 15/- to 19/9; medium, 11/- to 14/-; large, to 9/-; three-quarter bushels, prime, 10/- to 13/6; others, to 8/6; Valencias, bushels, prime, to 14/-; others, to 9/-; three-quarter bushels, prime, 10/- to 14/-; others, to 8/-; Lemons, best, 6/- to 7/9; large, to 4/6; Loquats, best, to 18/-; others, to 13/-; Passion-fruit, ½ cases, best, to 23/3; others, to 15/-; Strawberries, to 16/3; Cape Gooseberries, 4d. to 6½d.; Tomatoes, best, 9/- to 13/9; others, to 6/-.

New Zealand.

Reilly's Central Produce Mart report under date, 10/10/24, as follows: Australian Oranges by the "Moeraki" realised high prices. N.Z. Apples are practically off the market. Canadian Apples arrive about the 16th instant.

Pears: Winter Coles, 4½d. to 6d.; Winter Nelis, 5d. to 5½d. Apples: Statesman, 12/6; Sturmer, 13/- to 16/-; Democrats, 14/- to 16/6; Choice Cookers, 11/6; Lord Wolseley, 13/6; Rokewoods, 13/- to 15/-. Oranges: Australian Navels, 26/- to 30/-; Valencias, 24/- to 26/-; Tahitis, 22/-; Marmalade, 13/-; Lemons, Melbourne, 22/-; Mandarins, 24/-; Grape-fruit, 18/- to 22/-; Pineapples, 23/-; Bananas: Ripe, 30/-.

'Phone Central 8479

F. W. Vear

Fruit Importer
and Exporter

COMMISSION AGENT

49 WILLIAM ST.,
MELBOURNE, VIC.

Solicits consignments of APPLES,
ORANGES, BANANAS, PINES and
all other fruits.

Account sales with cheque daily.

Safety First to Foliage

Save Your Crops from BUGS AND BLIGHTS

DRY DUST YOUR VINES AND TREES

WITH

GREEN CROSS SULPHO-ARSENATE POWDER

It protects from many forms
of Plant Disease

— and —

Destroys Leaf-Eating Insects in
One Operation.

NO WATER REQUIRED

Can be supplied in 1-lb Sifting
Top Packets and 25-lb, 50-lb
and 100-lb Drums.

Welch, Perrin & Co.
Pty. Ltd.
48-56 QUEENSBIDGE ST.
SOUTH MELBOURNE



IT'S MORE THAN A
PORTABLE
—IT'S AN—
UNDERWOOD

Before the first Underwood Portable Typewriter was made, more than two million Underwood Standard Typewriters had already gone on duty—speeding the world's business.

All that is associated with the name UNDERWOOD—which everywhere means typewriter
SPEED,

ACCURACY,

DURABILITY,

is embodied in this Portable.

Write for descriptive booklet.

~~~~~  
**PRICE—Complete with £18**  
Carrying Case . . .  
~~~~~

**Stott's Underwood
Typewriter Agency**

**91-93 William Street
MELBOURNE**

~~~~~  
**Underwood Portable**  
~~~~~

Classified Advertisements.

Wanted and For Sale.

Advertisements under this heading, which cannot exceed one inch, will be classified as far as possible.

Prices are as follows:—

Casual Advertisements, one or three months—9d. per line of six words. Nine lines to the inch.

Contract Advertisements, six or twelve month, 6d. per line of 6 words. 9 lines to the inch.

Send cash with order.

BOOKS.

PRUNING FRUIT TREES, By C. Quinn. Illustrated. 5/- posted—
"Fruit World," 9 Queen Street, Melbourne, Vic.

ORCHARDISTS. TOBACCO LEAF FOR SPRAYING. Order while supplies are available. 56/- cwt. on rails, Melbourne.

BRUNNING,

64 Elizabeth Street, MELBOURNE.

SITUATION WANTED.

ORCHARDIST, Tasmanian, services available overseer, or working manager. Apply Sturmer, care "Fruit World," 9 Queen Street, Melbourne.

MANAGING PARTNER WANTED.

MANAGING PARTNER for Elinora Orchard, Wheeler's Hill, Melbourne, described in another column of this issue.

Apply to the Owner,

MR. S. STOTT,

91 William St., Melbourne.

AGENTS WANTED

London Fruit Brokers

A well-known and very old-established first-class firm invites applications from reputable agents to act as their representative in Southern Tasmania. Only firms or individuals of first class standing and capable of obtaining important consignments need apply.

Reply—"ACCORD,"

Gordon & Gotch,
Melbourne

Contracts for Citrons

We solicit correspondence with growers who wish to plant Citron Trees under contract for delivery of the fruit over a term of years.

C. M. BROOKE & SONS

Whiteman St., South Melbourne, Vic.

Cooksley & Co.

(W. P. COOKSLEY)

Reliable Fruit Agents

22 Years' Experience

TRY THEM!

**Fruit Exchange, Brisbane
QUEENSLAND.**

Shipping No. 29

Reference: Commercial Banking
Co. of Sydney Ltd.

ESTABLISHED 1891

AUG. STIER

FRUIT BROKER,

**Fruchhof,
HAMBURG**

Telegraphic Address: **FRUITERO, Hamburg.**

Consignments Solicited

Agents for Victoria and South Australia:—

J. B. MILLS & CO., 9 Queen St., Melb.

Reliable Representatives wanted for the other States.